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PSYCHOLOGICAL ABSTRACTS

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GENERAL

4337. **Claparède, Ed. L'histoire de la psychologie expérimentale (à propos du livre de E. C. Boring).** (The history of experimental psychology, à propos of E. C. Boring's book.) *Arch. de psychol.*, 1930, 22, 360–371.—The *History of Experimental Psychology* published by Boring is a true masterpiece; it is extraordinarily spirited. It is curious to note the fascination which German psychology has had for Americans, because, as Boring rightly says, American psychology has not followed the same path as German psychology. It is in its massive and colossal production, rather than in its inspiration and its results, that German psychology has influenced Americans.—*M. R. Lambercier* (Geneva).

4338. **Donat, J. Psychologia. Summa philosophiae christianae.** (Psychology. The height of Christian philosophy.) Innsbruck: Rauch, 1931. Pp. viii + 474. M. 5.00.—This work, the result of long years of study on the part of the author at the University of Innsbruck, is part of a many-volumed textbook of philosophy. It covers Aristotelian-scholastic philosophy, not in the sense of rejuvenation, but in the sense of sound further development which seeks to supplement and extend the philosophy by means of the formulations, investigations and products of the new period. By clear, concise condensation, it tries to combine philosophical and empirical psychology into a unified whole. Proceeding from the single psychic function, it deals first of all with sense perceptions and images; then with intelligence, the origin and association of ideas, attention, consciousness, and language; then with the lower and higher feelings and aspirations and with free will. This part concludes with an outline of abnormal psychical states, sleep, hypnotism, occultism, and psychic disorders. Being convinced of the feasibility of metaphysics, the author then passes over to the philosophical inquiries on the nature of the ego and the soul, their substantiality, spirituality and immortality, and the body-soul problem, which is solved in the sense of a substantial life union. A longer treatment of the origin of the soul and man and an examination of the anthropological descent theory concludes the book. The book is primarily intended for the higher schools where philosophy and theology are learned together. For that reason, the Latin language, which is principally maintained in connection with the scientific heritage of the past ages, is used. With a few adaptations, it is also entirely well suited to the expression of modern problems. The philosophical statements are usually given in concise logical form, which will aid in giving greater clearness as well as organization to the student's own thinking.—*J. Donat* (Innsbruck).

4339. **Dashiell, J. F. An experimental manual in psychology.** Boston: Houghton Mifflin, 1931. Pp. ix + 160. $1.90.—This manual is designed for use with the author's *Fundamentals* and closely follows it in outline; however, it may be used with a number of other texts, some of which are listed as references after each experiment. It is adapted especially to introductory experimental work, but may be modified for use in more advanced classes. Some of the 60 experiments are designed for individual work while others are best adapted to group or demonstration procedure. The general instructions to students point out the essentials of scientific technique and give suggestions for making graphs and writing up the experiments. In an appendix are suggestions to instructors for assembling the materials of the experiments, handling the routine of the laboratory work and securing the required apparatus from commercial houses.—*M. O. Wilson* (Oklahoma).

4340. **Freudenthal, B. Tagebücher über die amerikanisch-englische Studienreise, August bis Oktober 1927.** (Journal of an American-English research trip, August to October, 1927.) *Bl. f. Gefängniskunde*, 1930, 61, 127–196.—These notes were the result of an inspection of American and English prisons; they represent the immediate impression obtained by Freudenthal and are purely provisional. Since the death of their author they have been made public in their original form.—*H. Brandstätter* (Ichtershausen i. Thüringen).

4341. **Irwin, O. C. A cold light for photographing infant reactions with the high-speed motion picture camera.** *Child Development*, 1931, 2, 153–155.—This report describes a method whereby a neon light is used to meet the requirements of photographing the newborn, namely: (1) sufficient intensity at high speeds of the camera to photograph very rapid infant movements; (2) absence of heat, to avoid burning the skin of the infant; (3) elimination of rays injurious to the infants' retinas; (4) constancy of illumination for extended periods; (5) adaptability to the experimental situation (in this case to an experimental cabinet).—*M. P. Montgomery* (Faribault, Minn.).

4342. **Kerr, L. VI. Internationale Konferenz für Psychotechnik.** (Sixth international psychotechnical conference.) *Indus. Psychotechn.*, 1930, 7, 157–159.—*A. W. Kornhauser* (Chicago).

4343. **Lindworsky, J. Experimental psychology.** (Trans. by H. R. De Silva. 4th ed.) New York: Macmillan, 1931. Pp. xix + 406. $3.75.—This book presents a summary of the facts of experimental psychology from a point of view which is the author's own, but none the less distinctively German. The hierarchy of mental functions is traced from the simplest sensory experiences to the elaborate higher processes, always with an eye to the interrelations among the various categories. The combina-

tion of sensations into complexes is given special attention. The author recognizes the significance of these complexes for perception, though his concepts are rather more comprehensive than those of the Gestalt school. The knowledge of relation is represented as one of the fundamental and most important forms of mental process. The higher functions are organized and discussed under the classic trichotomy, viz., cognition, feeling, and volition. The last few chapters are devoted to socially influenced mental achievements, and exceptional mental states such as sleep, dreams, and hypnosis.—*M. N. Crook* (University of California at Los Angeles).

4344. **Mackell, J. F. A simplified instrumental method of measuring sound absorption coefficients.** *Science*, 1931, 74, 224–225.—*R. R. Willoughby* (Clark).

4345. **Schoen, M. Human nature; how it grows and how it operates.** New York: Harper, 1931. Pp. 520. $3.50.—See IV: 3769 for abstract of text edition, with which this is identical.—*J. C. Spence* (Clark).

4346. **Warren, H. C. Dynamic psychology.** *Scientia*, 1931, 49, 347–354.—The author deplores the division of psychologists into behaviorists and introspectionists. It must be remembered, he says, that the organism is a unitary system, engaged in adjustment to its environment by means of a dynamic interplay, and the details or units of this interplay must not be over-emphasized.—*R. G. Sherwood* (Redmond, Washington).

[See also abstract 4555.]

SENSATION AND PERCEPTION

4347. **Baumgarten, F., & Ehinger, G. Apparativer oder Papiertest bei der Augenmassprüfung?** (Apparatus or paper tests of visual judgment?) *Psychotechn. Zsch.*, 1931, 6, 33–40.—Frequently, people who are engaged in psychological measurements believe that apparatus and paper tests are of equal reliability. The authors attempted to give an experimental proof of this contention. They employed a simple apparatus, consisting of two metal bars of 31 cm. in length, which lay parallel on two small side posts. One of these bars contained a millimeter scale, visible only to the observer. With it the errors of judgment were easily and accurately obtained. A movable lever was superimposed on the other bar. With it the subject indicated his responses, which consisted in bisecting and trisecting a line and a triangle. The paper test consisted merely in doing the above-mentioned task by reproducing the line and triangle in halves and thirds. 83 subjects were required to go through these tests, using the apparatus at one time, at another the paper-pencil method. The subjective reports indicate that 67.5% of the subjects preferred the apparatus test. These subjects also showed better results on the apparatus test than they did on the paper-pencil test. On the other hand, the subjects who like to draw and who stated preference for that method made better scores in the latter test. The correlation between the scores on the two kinds of tests was only .10. The authors maintain that, although the two kinds of tests were designed for the same purpose, they require different abilities. However, they caution against generalization concerning the comparative usefulness of paper-pencil and apparatus tests. They believe that it may be possible that other experimental set-ups might give different results.—*C. Burri* (Chicago).

4348. **Beebe-Center, J. G. The variability of affective judgments upon odors.** *J. Exper. Psychol.*, 1931, 14, 91–93.—"It seems reasonable to conclude tentatively that in the case of relative affective judgments by different individuals upon a single set of olfactory stimuli agreement is primarily dependent upon like organic constitution whereas disagreement rests in the main upon unlike past experiences."—*S. Renshaw* (Ohio State).

4349. **Bouman, H. D. I. Über das Broca'sche Phänomen in Zusammenhang mit der Theorie des inneren Ohres. II. Apropos du phénomène de Broca en rapport avec la théorie de l'oreille interne.** (Broca's phenomenon in relation to the theory of the inner ear.) *Arch. néerl. de physiol.*, 1930, 15, 311–337; 457–561.—According to Broca's findings, when a person listens to two sounds of the same frequency but of different intensities the louder appears the deeper. The present author has confirmed this with most subjects, but he has found that the phenomenon is more obvious when high notes are used than when low notes are heard. It is believed that the movements of the basilar membrane must be asymmetrical, since the resonators tuned to a given note absorb the vibrations and prevent the other resonators from being greatly affected. A loud note overcomes the resistance of the appropriate resonators better than a soft one, and will stimulate the resonators for low notes situated near the helicotrema. A given note becomes higher in pitch following fatigue to a low note, and vice versa. Broca's phenomenon is not observed when the sound stimuli are conducted by the bone of the mastoid process, since the basilar membrane is symmetrically stimulated. Very occasionally it is reversed or is present with bone conduction, probably due to diminished rate of conduction. It is considered probable that Corti's arch as well as the fibers of the basilar membrane form a resonator system. The analysis of a complex sound is a peripheral phenomenon.—*C. P. Stone* (Stanford).

4350. **Cathcart, G. C. The treatment of chronic deafness, by the electrophonoïde method of Zünd-Burguet.** (2nd ed.) New York: Oxford, 1931. Pp. 120. $1.50.—(Not seen).

4351. **Ferree, C. E., & Rand, G. Visibility of objects as affected by color and composition of light. Part II: With lights equalized in both brightness and saturation.** *Person. J.*, 1931, 10, 108–124.—Tests for acuity, power to sustain clear vision, and loss of visual efficiency, have been employed to show the effects of color and composition of light on the visibility of objects in selected relations of objects to background and on functions which are of importance to the working eye. The spectral colors are ranked according to the several tests. The mid-range of the spectrum was found to be most efficient

in all of the tests, with yellow ranking highest in nearly every case; the only exception was that of fatigue or sustained acuity, and red and orange were found to be most efficient in the latter test.—*C. V. Hudgins* (Clark).

4352. **Goudriaan, J. C. Über den Einfluss der Temperatur auf die Geschmacksempfindung.** (The influence of temperature upon taste sensation.) *Arch. néerl. de physiol.*, 1930, 50, 253–282.—*C. P. Stone* (Stanford).

4353. **Hays, H. The modern conception of deafness.** *Med. J. & Rec.*, 1931, 133, 213–215; 264–266; 320–322; 378–380; 430–433; 485–486; 536–538; 587–590; 134, 12–14.—These articles are projected in book form. Chapter I distinguishes between perceptive and conductive (or obstructive) deafness, and relates the recent improvements in instrumental technique for determining the local and organic causes of the latter type of disorder, for which, in contrast to the former type, more hope of relief may be extended to deafened persons in the United States, whose number is estimated to be approximately six million. Chapter II details the anatomy and physiology of the outer, middle, and inner ear, emphasizing the critical importance of the footplate of the stapes in guaranteeing normal hearing, and states that the ear is "no simple apparatus, like the eye." Chapter III assumes the tenability of the Helmholtz theory, reviews no more recent theoretical treatment, expresses astonishment that the drop of a pin should be appreciated by the tympanum, and mentions the now celebrated Princeton cat. Chapter IV explains how deafness is tested by the 2A audiometer and the phonoaudiometer. Chapter V deals with the three main causes of deafness in childhood: (1) "meningitis, syphilis, or some intercurrent infection which gives rise to some unaccountable alteration in the internal ear, auditory nerve or brain," (2) malnutrition and lack of vitamin feeding, and (3) inflammatory conditions, catarrhal affections, and similar local disorders. Chapter VI furnishes illustrative cases to show that an increased hearing loss in adults may be due to glycosuria, genito-urinary disorders, intestinal toxemia, or a general hypersensitivity with its lavish emotional expenditures. Local disorders in the head, such as nasal obstructions and tonsillar disease, are also mentioned. Chapter VII gives in detail the improved methods of examination for deafness, including the diagnostic value of sounds from the Eustachian tube. Psychogenic causation is also emphasized. Chapter VIII furnishes an audit of the symptoms associated with deafness, and classifies children deficient in hearing into those in need of special schools, those who need special instruction in lip-reading, and those who can be treated by medical means. Mention is also made of the insidious age, the dangerous age (puberty), the procrastinating age, and the hopeless age with respect to deafness. Special warning is uttered against isolating the deafened, as well as against allowing them to seek isolation as relief.—*R. C. Givler* (Tufts).

4354. **Loemker, K. K. Certain factors determining the accuracy of a response to the direction of a visual object.** *J. Exper. Psychol.*, 1930, 13, 500–518.—An experiment "to test the efficacy of the two factors—head position and position of the object in the visual field—in making a localizing arm reaction to a fixated object." When the head was turned to the right of the line of sight the object was localized (by pointing) to the right of the true position, and when turned to the left the localizations were to the left. Least errors were made when the objects were in the central retinal position. The size of the errors increased in the periphery, the direction of the error corresponding to the position of the object in the visual field. No quantitative relations are given.—*S. Renshaw* (Ohio State).

4355. **Luckiesh, M., & Moss, F. K. Seeing—a partnership of lighting and vision.** Baltimore: Williams & Wilkins, 1931. Pp. 248. $5.00.—This treatise presents the first coordination of extensive researches involving light and lighting as important factors along with the visual sense in the realization of seeing. Extensive knowledge has been available from the researches of Helmholtz and others concerning the eyes and the visual sense, but in these light and lighting are incidental. The present book lays the foundation for a new science of seeing by combining these two viewpoints. The ultimate aim of this work is to aid human beings to see more easily and clearly, to conserve their eyesight and other resources, and to increase their usefulness and happiness. It is of interest to psychologists, physiologists, ophthalmologists and optometrists in their research and practice; to lighting specialists and others concerned with efficiency and productiveness in the work world; and to anyone confronted with a problem or condition involving visibility. The first half of this book presents the fundamental relations between light, lighting and vision, as based upon purely scientific data. These coordinated results of scientific investigations lay the foundation of a new science of seeing. Inasmuch as the subject is intimately associated with human behavior involving almost unlimited complexity, the work is confined chiefly to those phases of seeing which are more or less controllable, such as size, contrast and brightness of objects, quantity, quality and direction of light, correcting lenses, and other external factors in seeing. The second half of the book presents interpretations of some of these data into terms directly applicable to the practice of lighting and seeing, and suggests the possibilities of many other interpretations. As intensity of illumination is now the most generally efficacious means for assisting vision, this phase is discussed in detail. The discussion closes with a summary chapter on the cost and value phases of lighting for seeing. The Demonstration Visual Test, printed as a supplement to the work, consists of 18 plates involving a visual task or series of tasks, offering a ready means of appraising different visual situations.—*M. Luckiesh* (General Electric Co., Cleveland).

4356. **McAuliffe, G. B. Neglect of slight deafness in children.** *Med. J. & Rec.*, 1931, 134, 29–31.—A plea for wider inspection of auditory acuity and nasopharyngeal catarrh, and for improvements in nutrition as aids to those auditory deficiencies

which are usually allowed to persist through casual neglect.—*R. C. Givler* (Tufts).

4357. **Meyer, E. Grundlegende Messungen zur Schallisolation von Einfach-Trennwänden.** (Basic measurements for sound insulating values of single dividing walls.) *Sitzber. d. preuss. Akad. Wiss.*, 1931, 9, 166–181.—By using experimental walls varying from 2 to 500 kg/m², set up between specially constructed rooms, the sound insulating value of walls was found to vary directly with the logarithm of the weight of the wall. In a second experiment the actual vibration amplitudes and frequency of the walls were measured, and the sound insulation values predicted from these measurements corresponded well with the measured values of insulation from the first experiment. A third experiment determined the period, the rate of damping and the elasticity modulus of the walls. Results indicate that the sound insulating value of a wall depends on the wall mass, which determines its vibration characteristics.—*H. Peak* (Yale).

4358. **Pierce, A. D. Color and music.** *Amer. Mercury*, 1931, 33, 243–246.—A brief historical and critical account of some of the chief attempts to relate colored lights to tones in musical compositions.—*J. T. Metcalf* (Vermont).

4359. **Thompson, E. S. The prevention of myopia.** *Med. J. & Rec.*, 1931, 134, 163–166.—While "curvature" myopia may often be congenital, the majority of other cases are now regarded as acquired. Stiffening of the ciliary muscle as an abnormal result of compensation for corneal astigmatism brings about stretching of the sclera, and this appears to be the most likely cause of the disorder (Riley). Lowered tissue resistance, which may be hereditary, aids in making the defect chronic. Correction begins with treatment for the astigmatic condition, and is aided by inculcating good reading habits and by general aids to nutritional health. The whole of the eye should be regarded as a possible contributor to the defect, and its general therapy as a sure aid to recovery.—*R. C. Givler* (Tufts).

4360. **Wagner, K. W. Geraüsch und Lärm.** (Noise.) *Sitzber. d. preuss. Akad. Wiss.*, 1931, 9, 154–165.—Literature pertaining to noise is discussed under three divisions: the effect of noise on the organism, the sources of noise, and the measurement of its intensity. There follows a consideration of specific methods by which noise may be reduced in the modern city. The author reports a method of insulating the noise of machines and discusses the problem of the permeability of walls to sound. This characteristic appears to depend chiefly on the degree to which the wall acts as a vibrating membrane. Formulae are given for determining the sound insulating values of single walls. These indicate that the insulating value increases with increasing weight of the wall and with increasing frequency of the sound.—*H. Peak* (Yale).

4361. **Woodrow, H. The reproduction of temporal intervals.** *J. Exper. Psychol.*, 1930, 13, 473–490.—The net result of prior work in the field of time is characterized as a series of "gross inconsistencies and ambiguities." There is nothing apparent to prevent a clearing of the air with proper intensive and extensive experimentation. To this problem the author is addressing a series of studies, of which this paper is one. When two short intervals of about equal length are compared, the second commonly seems shorter; if long, the second seems longer. In the first case the first interval is longer, in the second case the second. This is an error due to the order of presentation, and it is therefore just as true to say that the *length* of the interval is not the important factor in estimation. It depends upon which member of the pair the interval being judged becomes. The problem of the so-called *indifference interval*, from Vierordt on, has been unsatisfactorily handled, due to the confusion of the result obtained by reproduction methods with that from the comparison methods. The existence of either or both of these intervals is open to question. The author's problem here is "to explore . . . the constant and variable errors made in reproducing intervals of time . . . to determine the relationship between these errors and the length of the reproduced interval." The intervals used, 13 in number, varied from 0.2″ to 30.0″, and were empty, bounded by two clicks. Each interval was used alone on any one day and was presented and reproduced 50 times. The author holds that "entirely different results might be expected" if all the intervals were employed on one day, particularly if given in, say, a serial-groups order. The work began always with the shortest interval, proceeding in a daily ascending series. This was followed by a descending series for each S. The S's task was to reproduce each stimulus interval by tapping on a Seashore noiseless reaction key, thus producing an interval whose bounding clicks were identical with the instrumentally produced stimulus interval. The S's were instructed not to count or make any rhythmical movements with any body muscles. Each S kept a full protocol "of what he did" in reproducing the intervals. Although never varied in a sitting, the S's reported quite often "that the interval seemed to vary considerably" even though informed of the constancy, but not of the length, of the daily interval. There were 8 S's—senior or graduate students, all with some laboratory training. The intervals of various lengths were controlled by a Hipp chronoscope, a Klopsteg fall apparatus, a Bergstrom chronoscope, a Kronecker metronome and a Bowditch-Baltzar contact clock. All reproductions were timed with the Hipp. "From the average of the S's reproductions was subtracted the duration of the stimulus interval . . . to obtain for each duration of the stimulus interval the S's *constant error*." An analysis of the means and sigmas of these C E's for the 8 S's yielded the following conclusions: (1) There was no universal tendency for long intervals to be under-estimated or for short ones to be over-estimated. (2) Almost every sort of variation in the errors of reproduction occurred among the several S's. No S showed any absolute consistency in the direction of error throughout the author's range of experimental intervals. (3) There is a daily variation in error for the same S reproducing the same interval. (4) A shift in attitude can reverse the sign (direction) of the constant error. The

author proposes the hypothesis that the C E's and individual differences are "mainly the results of differences in attitudes." No hint as to the mechanism of the reproduction of temporal intervals was given in any introspective report. (5) The relative variability was smaller for the shorter intervals, yet "far from . . . constant over the entire range." (6) For intervals of 6 sec. and beyond there is very little change in the relative standard deviations.—*S. Renshaw* (Ohio State).

[See also abstracts 4344, 4370, 4407.]

FEELING AND EMOTION

4362. **Claparède, Ed. L'émotion "pure."** ("Pure" emotion.) *Arch. de psychol.*, 1930, **22**, 333–347.—The emotion which the author calls "pure" is an emotion which never figures in classifications or in the descriptions of psychologists; it is, however, very common. It is the emotion which one feels when one is troubled (*gerührt*): the mouth contracts, tears flow, the body trembles slightly. This emotion is aroused especially in trouble. It does not appear to have any adaptive function. It seems to consist only in the consciousness of organic and peripheral modifications, and this phenomenon demonstrates very well all that is correct in the James-Lange theory.—*M. R. Lambercier* (Geneva).

4363. **Lyons, C. Emotional hypercholesterolemia.** *Amer. J. Physiol.*, 1931, **98**, 156–162.—Cats adapted to laboratory life have a fairly constant blood cholesterol level. The experimental excitation of a normal cat produces an emotional hypercholesterolemia. Within twenty to forty minutes after excitation, there is an increase in blood cholesterol of 25 to 30%. The percentage usually returns to normal within an hour. Sympathectomized animals show no emotional hypercholesterolemia. Cholecystectomy does not abolish emotional hypercholesterolemia.—*C. Landis* (N. Y. Psychiatric Institute).

ATTENTION, MEMORY AND THOUGHT

4364. **Aldrich, C. G., & Doll, E. A. Problem solving among idiots.** *J. Comp. Psychol.*, 1931, **12**, 137–170.—This is a study of problem solving by means of box stacking with idiot subjects, employing a technique similar to that used by Bingham in his study *Chimpanzee Translocation by Means of Boxes.* Problems were presented which required that the subject, on his own initiative, move one, two, or three boxes under a lure which was suspended from the ceiling, climb upon them and obtain the lure. The subjects were eight feeble-minded boys of idiot level, ranging in life age from 8 to 12 years and in mental age from 19 to 38 months. The study yields the following conclusions: (1) The application of this technique to idiot subjects is doubly advantageous in that it eliminates the language factor and presents a means of comparing the performances of idiot children with those of apes; (2) observation of learning in these situations suggests that (a) a basic mental age is necessary, although beyond a certain mental age individual differences play an important rôle in success, and (b) incentive is an important factor; (3) the comparison with apes suggests similarities in mode of adaptive behavior, but having solved the problem the idiot more quickly perfects his response than does the ape. An additional contribution could be made by comparison with an identical study of preschool children. At the present time, however, the techniques used with different types of subjects are too variable to permit extensive conclusions in this respect.—*C. G. Aldrich* (Vineland Training School).

4365. **Bills, A. G. Mental work.** *Psychol. Bull.*, 1931, **28**, 505–552.—A review of 76 titles, under many topics grouped under the following heads: theoretical aspects, curve of work, subjective fatigue, physiological effects of mental work, facilitating and inhibiting factors, diurnal and seasonal variations, kind of work, speed and accuracy, individual and group differences, rest and recovery.—*J. F. Dashiell* (North Carolina).

4366. **Bolton, E. B. The relation of memory to intelligence.** *J. Exper. Psychol.*, 1931, **14**, 37–67.—The recognition type of memory tests shows low correlations with other types of memory tests and low correlation with tests of the Alpha type, which leads the author to conclude that "there is little relationship between pure retentivity and intelligence." On the other hand she finds the correlations high between logical memory tests (such as those used in the Binet scale) and intelligence. The tests were given in groups and the results analyzed by the Spearman tetrad difference technique.—*S. Renshaw* (Ohio State).

4367. **Maier, N. R. F. Reasoning in humans. II. The solution of a problem and its appearance in consciousness.** *J. Comp. Psychol.*, 1931, **12**, 181–194.—61 subjects were given the task of solving a problem having four possible solutions. "Two cords were hung from the ceiling, and were of such length that they reached the floor. One hung near a wall, the other from the center of the room. The subject was told, 'Your problem is to tie the ends of these two strings together.' He soon learned that if he held either cord in his hand he could not reach the other. He was then told that he could use or do anything he wished." A number of objects which might help in the solution of the problem were present in the room. After each solution had been mastered the subject was told to solve the problem in still another way until all of the solutions had been learned. The trials were timed and introspective reports concerning the means of solution were recorded. A number of hints were given from time to time when the subject failed to reach a solution. The author's conclusions are to the effect that "The perception of the solution of a problem is like the perceiving of a hidden figure in a puzzle-picture. In both cases (*a*) the perception is sudden; (*b*) there is no conscious intermediate stage; and (*c*) the relationships of the elements in the final perceptions are different from those which preceded, i.e., changes in meaning are involved." The author feels that trial and error or association by similarity cannot explain his results.—*N. L. Munn* (Pittsburgh).

4368. **Telford, C. W. The refractory phase of voluntary and associative responses.** *J. Exper. Psychol.*, 1931, 14, 1–36.—Since refractory phase is regarded as a universal post-stimulation phenomenon of sensitive tissues, the question arises whether a similar effect may be observed which is characteristic of voluntary and associative responses. Three sets of experiments were made, using reaction time, judging the longer of two parallel lines, and nonsense syllable-number sequences after the method employed by Thorndike. Variations in the interims between stimulations were introduced. These ranged from ½ sec. to 16 sec. The author's results led him to conclude that in the case of the three processes studied effects are produced in the organism which "serve as a barrier against immediate repetition." The subsequent return to "normality" is comparable to that found in isolated tissues and reflexes, and while it may not be identical with refractory phase in nerve-muscle preparations, it is probably based upon it.—*S. Renshaw* (Ohio State).

4369. **Yum, K. S. An experimental test of the law of assimilation.** *J. Exper. Psychol.*, 1931, 14, 68–82.—"To what extent will a motor response that has been contiguously associated with a given perceptual stimulus be aroused by a similar stimulus with which it has not been associated, and to what extent is the likelihood of arousal a function of the degree and kind of similarity involved?" The principle involved goes by many names—associations, conditioning, growth of language ability, formation of concepts, generalization, transfer, and even trademark infringement. Subjects were required to memorize a series of paired associates to the point of mastery. In the recall tests 24 hours later, novel stimuli exhibiting certain specified kinds and degrees of similarity were substituted for the original stimuli. The results were then compared with recall under the standard condition. The influence of three kinds of similarity was investigated: similarity of nonsense syllables with respect to spelling, word stimuli with respect to meaning, and visual patterns. For the syllables there is no conclusive evidence that the amount of recall varies significantly with the degree of similarity. Any alteration of any of the letters of the two syllables reduced the amount recalled. For the word meanings, "a response associated with a stimulus word tends to be aroused by a novel word having a similar meaning, and the likelihood of arousal varies directly with the degree of similarity." The same generalization holds for the visual figures used in the experiments. The author is of the opinion that similar effects can be obtained from diverse sense modalities, although he did not make the experiment.—*S. Renshaw* (Ohio State).

[See also abstract 4531.]

NERVOUS SYSTEM

4370. **Davis, H., & Saul, L. J. Action currents in the auditory tracts of the midbrain of the cat.** *Science*, 1931, 74, 205–206.—Responses from the auditory tracts were obtained by means of an amplifier in connection with ear phones and by means of a string galvanometer. With the former method the results obtained by Wever and Bray (*Science*, 1930, 71, 315), were confirmed. With the latter method general results included the following: Responses are much greater in the auditory pathways than in the surrounding tissue. Application of narcotics near the electrode obliterates the galvanometric responses. When electrodes are placed upon crossed tracts, responses are chiefly contralateral, i.e., the electrode in the left midbrain is much more sensitive to stimuli applied to the right ear than to those applied to the left ear. Death of the animal terminates the responses, those from the brain stem before those from the acoustic nerve. The effects in the brain stem are believed to represent at least two elements: primarily, action currents in the particular auditory tract to which the electrode is applied; and secondarily, electrical spread from more distant parts of the auditory mechanism. Results obtained are believed to indicate that true action currents in the auditory pathways were dealt with.—*B. Casper* (Clark).

4371. **Papez, J. W. The brain of Sutherland Simpson (1863–1926).** *J. Comp. Neur.*, 1930, 51, 165–196.—The brain herein described is that of an eminent physiologist, who was head of the department of physiology, Cornell University, from 1908 to the time of his death in 1926. He had been an energetic and scholarly researcher and teacher from about 1901 to the last year of his life. Simpson's brain weighed 1323 grams. In point of weight it compares favorably with the brains of other scholars (G. Stanley Hall, William Osler, E. S. Morse, and Burt G. Wilder) and is somewhat larger and heavier than the brains of 24 representative cases (non-scholars). Its chief features are its large size and the wealth of convolutions in the parietal, occipital, and temporal regions. The frontal region was of average size, but the inferior frontal convolution in its anterior part was especially well developed. As compared with average brains or with the brains of the above mentioned scholars, the precuneus convolution was extraordinarily well developed.—*C. P. Stone* (Stanford).

4372. **Pollock, L. J., & Davis, L. The reflex activities of a decerebrate animal.** *J. Comp. Neur.*, 1930, 50, 377–411.—In these experiments cats were rendered decerebrate by cerebral anemia induced by ligation of the basilar and the carotid arteries. The level at which decerebration took place depended upon the point at which the basilar artery was tied off. It could be determined by the injection of a vital dye into the blood stream, since the level of sectioning is indicated by the cephalad limits of the stained tissue. In a detailed and highly technical description of a number of specimens the authors show that it is possible by this technique to dissociate many of the complex reflexes which are concerned with the animal's maintenance of bodily orientation in space. The method may be considered a suitable alternative for the destruction of neural tissues by cautery or ablation.—*C. P. Stone* (Stanford).

4373. **Pollock, L. J., & Davis, L. Studies in decerebration. VI. The effect of deafferentation upon decerebrate rigidity.** *Amer. J. Physiol.*, 1931, 98, 47–49.—"Decerebrate rigidity is due to a summa-

tion of reflex activities, of which the stretch reflex represents but a small part."—*C. Landis* (N. Y. Psychiatric Institute).

[See also abstracts 4391, 4395, 4396, 4397, 4402, 4435.]

MOTOR PHENOMENA AND ACTION

4374. **Carlson, A. J. Hunger.** *Scient. Mo.*, 1931, 33, 77–79.—A simple presentation of the physiology and the psychology of hunger in the form of a radio talk.—*J. F. Dashiell* (North Carolina).

4375. **De Jongh, S. E., & Laquer, E. Wirkung des Hypophysenvorderlappenhormons auf die Genitalia bei senilen männlichen Tieren.** (The effect of anterior pituitary hormone upon the genitalia of senile male animals.) *Arch. néerl. physiol.*, 1931, 16, 84–90.—By injections of anterior pituitary hormone prepared from the urine of individuals in the early stage of pregnancy (rich in the so-called B factor) the sexual apparatus of senile rats was reactivated or enlarged. Especially clear-cut was the enlargement of the seminal vesicles and the increase in interstitial cells. The enlarged and increased tissues were about 10 times that of the controls. The authors discuss the question whether the senile condition of the reproductive organs arises from changes in the testes or from insufficiency of anterior pituitary hormone. The therapeutic value of these findings is also discussed.—*C. P. Stone* (Stanford).

4376. **Freeman, N. E., & Phillips, R. A. Studies on the conditions of activity in endocrine organs. XXVII. The question of reflex inhibitory action of the vagus on medulliadrenal secretion.** *Amer. J. Physiol.*, 1931, 98, 55–59.—"Impulses inhibiting medulliadrenal secretion are not carried by the vagi from the splanchnic area. Adrenal secretion can be inhibited by impulses carried by either vagus from the region of the heart and lungs."—*C. Landis* (N. Y. Psychiatric Institute).

4377. **Gemmill, C. L. The "excess respiratory quotient" of the recovery period following strenuous muscular exercise in man.** *Amer. J. Physiol.*, 1931, 98, 135–143.—In a study of the recovery period following strenuous exercise of short duration, it has been shown that the oxygen returned to a base line within two hours in four of the experiments. In one experiment, it remained parallel and 20 cc. above the base line. The carbon dioxide production returned to a base line within three hours. A consideration of the inherent and unavoidable errors in the calculation of the "excess respiratory quotient" shows that this quotient is a mathematical abstraction. It cannot be evaluated experimentally with our present methods with any degree of precision and is thus useless from the standpoint of determining the type of metabolism characteristic of exercise.—*C. Landis* (N. Y. Psychiatric Institute).

4378. **Gulliksen, D. P. Changes in the basal metabolic rate accompanying the conditioned state induced by morphine.** *Amer. J. Physiol.*, 1931, 98, 25–34.—In dogs conditioned to the injection of morphine the metabolic rate is increased more than can be explained by chance. By removing one adrenal gland and denervating the other, no increase in metabolic rate occurred during the control periods. During the conditioned periods, increases would occur. Hence, adrenalin is not a necessary factor in this increase.—*C. Landis* (N. Y. Psychiatric Institute).

4379. **Harrenstein, R. J. Moet bij de beroepskeuze rekening gehouden worden met linkshandigheid?** (Must allowance be made for left-handedness in the choice of an occupation?) *Jeugd en Beroep*, 1930, 3, 339–345.—The author sent to about 40 factories and business concerns of 32 different kinds a questionnaire on the prominence and effect of left-handedness as seen among workers. Answers were obtained covering over 58,000 employees. Only two factories, however, gave the actual number of cases of left-handedness among their workers. In these two, about 1% of the employees had been found to be left-handed, as contrasted with 4% of individuals in the general population. Harrenstein holds that probably only very pronounced and somewhat ill-adapted left-handed individuals were noted as such. In general it appears that though left-handedness is something of a handicap, it is one that can usually be overcome. No occupation has rules making it difficult for left-handed persons to enter it. Typography, machine work, and some other occupations do make greater demands upon the adaptability of the left-handed worker than do certain types of handwork like carpentry, bricklaying, and tailoring, in which the tool can be more easily adapted to the worker. On the whole, however, it may be said that left-handedness does not limit the individual in his choice of a vocation.—*E. M. Pilpel* (New York City).

4380. **McGeoch, J. A. The acquisition of skill.** *Psychol. Bull.*, 1931, 28, 413–466.—A review of 193 titles, organized under the topics: experimental—curve of learning, plateaus, influence of motivation, of guidance, age and sex differences, comparative studies, hypnosis, transfer, etc.; general and theoretical—definitions, law of frequency, of effect, maturation, insight vs. trial and error, the conditioned response, the nervous system; retention—curve of retention, influence of overlearning, of nature of material, of length of problem, etc.—*J. F. Dashiell* (North Carolina).

4381. **Montgomery, M. F. The influence of atropin and pilocarpin on thirst (voluntary ingestion of water).** *Amer. J. Physiol.*, 1931, 98, 35–41.—Small doses of atropin given to dogs over a period of three days did not significantly alter the water intake. Large doses of atropin seemed to alter the two-hourly fluid intake of these dogs. Injections of pilocarpin after a two-day thirst period did not affect the water intake. Hence, it seems that whatever changes in water ingestion may occur after injections of atropin or pilocarpin are caused by some other factor than drying or moistening of the membranes of the mouth and pharynx by suppression of or increase of salivary secretion.—*C. Landis* (N. Y. Psychiatric Institute).

4382. **Scheidemann, N. V., & Colyer, H. A study of causes of left-handed writing preferences of some right-handed children.** *Psychol. Clin.*, 1931, 20, 116–119.—Brief case studies of seven right-

handed children who were using their left hands to write. Such factors as chance remarks of teachers and admiration for an older left-handed child were found to be directly responsible for the unnatural hand preference.—*J. T. Metcalf* (Vermont).

4383. **Skawran, P. Die Typologie der Ergogramme und ihre Beziehung zur Energie-Typen und zu den Körperbautypen Kretschmers.** (The typology of ergograms and their relation to energy types and to Kretschmer's constitutional types.) *Psychotechn. Zsch.*, 1931, 6, 10–19; 49–63.—The author begins with a brief historical review of the work of Lombard, Kraepelin, Mosso, Binet, Broca, Poppelreuter, Mumford, Lehmann, and Kretschmer, and then reports his own investigation on the correlation of body and energy types. He used a Mosso ergograph with a 5-kg. weight, which had to be lifted by a group of subjects, at a speed of 40 times per minute. Of the 260 persons who served as subjects in the investigation 25% were students, 41% laborers, and 34% adolescent criminals. The classification of the participants into energy types was made on the basis of anthropometric measurements and ratings made by several judges who knew the subjects. Several ergograms were taken for every subject. These records were then analyzed and classified according to their form and size. Skawran maintains that it was possible to determine three fundamental forms of ergograms. These he named: (1) the triangle type; (2) the rectangle type; and (3) the formless type. The author admits, however, that there is much overlapping, so that many of the curves cannot be clearly put into one or another of the classes. Thus he established several sub- and transition types, such as, for example, a transition type between high rectangle and low triangle, and concave and convex types. After the classification of the ergograms, the different types were compared with the results from the anthropometric measurements. Examples of the relation between the energy types and the shape of the ergograms are presented by photographic illustrations, characterization of the individuals, and by showing their ergogram curves. It was found that: (1) leptosome individuals tend to show concave and formless ergogram curves; (2) pyknic types produced convex curves; while the athletic types gave either concave, simple or rectangular curves.—*C. Burri* (Chicago).

[See also abstracts 4351, 4363, 4368, 4431, 4435.]

PLANT AND ANIMAL BEHAVIOR

4384. **Allee, W. C. Animal aggregations.** Chicago: Univ. of Chicago Press, 1931. Pp. ix + 431. $5.00.—This book treats of relationships within the more loosely organized animal groups, as concerns their physiological, ecological, and social implications. The work is presented as a preliminary summary in a pioneer field. Sections are devoted to harmful, beneficial, and general effects of aggregations. The author suggests that sex may have arisen from the interstimulation of two asexual organisms, in association with each other, and may subsequently have become an integrating factor in further social development. Automatic cooperation is shown to be a fundamental property of animal protoplasm, which is not wholly in opposition to the principle of the struggle for existence. A bibliography of about 800 titles is appended.—*M. N. Crook* (University of California at Los Angeles).

4385. **Bierens de Haan, J. A. Dier en werktuig.** (Animal and tool.) *Mensch en Maatschappij*, 1931, 7, 89–102.—A tool is, according to the writer, an object which is no part of the body of the user, but is temporarily used by him in an action to complete that action or to facilitate it. The reaction of an animal upon simple sensations, the *tropisms* or *tactic movements* have three natures: (1) they are native; (2) they are typical for the species; (3) they are useful, e.g., for self-preservation. The *actions by instinct* are more complicated than the tropisms, but otherwise prove to be of the same nature. The *actions by intellect* use individual experience. Actions based upon thought and reasoning are not found in animals, but they exhibit useful actions acquired by experience. There follows a statement of the psychological value of the use of tools by animals. With tactic movements animals do not use tools. They do so with actions of instinct; e.g., the weaver ants, having no spinning gland, use their larvae, which are provided with such, by moving them between two leaves in order to make a nest. Actions of intellect are found only in the highest animal species, especially the anthropoid apes and sometimes the lower apes. A few examples are given.—*C. Lekkerkerker.*

4386. **Buytendijk, F. J. J. Über das Umlernen.** (Relearning.) *Arch. néerl. de physiol.*, 1930, 15, 283–310.—Working with rats, the author required the animals to learn the correct direction leading to food in a simple T-maze. When this habit had been formed, the animals were required to go to the reverse side until a new habit had been correctly formed. This practice of requiring the animal to form successively the right and the left habit in the T-maze was continued until 5 shifts had been made, making a total of six habits which the animals formed. Two groups of animals, 5 each, were used in the experiment. The one started with a left turn and the other started with a right turn; they did not differ otherwise with respect to each other. Each habit was considered formed when the animals could run with 95% correct choices on two successive days, in which the daily task was 10 trials. Although the course of error elimination in the original series was typical of the usual animal learning, those of successive reverse learning series became less and typical. The habit tended more and more to involve only one or two (minimal) errors. In the words of the author, the animals learned how to relearn. In a variation of the foregoing experiment four pathways were presented. After the animals had learned the one arbitrarily designated as correct, some other alley was then designated as correct. Much greater individual differences were found in this experiment. Evidences of insight in the rats' behavior were observed.—*C. P. Stone* (Stanford).

4387. **Buytendijk, F. J. J. Über Hemmungen gewöhnter Bewegungen bei Tieren.** (The inhibition

of accustomed movements in animals.) *Arch. néerl. de physiol.*, 1930, 15, 381–401.—The speed of rats trained to run in a straightaway maze increases with each trial, but true learning, as in the labyrinth, is not present. The increasing speed is due to a decrease in the number of checks arising from unaccustomed stimuli such as sights, sound, etc.—*C. P. Stone* (Stanford).

4388. **Buytendijk, F. J. J., & Fischel, W. Strukturgemässes Verhalten von Ratten.** (Adaptive behavior of rats.) *Arch. néerl. physiol.*, 1931, 16, 55–83.—This study is concerned with the possibility of end results influencing present activity in the case of rats. Three questions are posited for experimental investigation: (1) If a long and a short path stand between the animal and the visible goal, will the short path be chosen? (2) A known path to the goal involves a definite pattern of behavior; within what limits is this pattern of behavior transferable? (3) Can an animal in a simple, easily visible situation determine which result a certain action will bring? Two maze situations of the narrow path, elevated type are used. In one, a continuous path in the form of an acute angle leads from the start to the food box. The arms of the angle are 130 cm. and 100 cm. The short path, 50 cm. long, leads directly from the start to the food box, forming the third side of the triangle formed by the paths; this path is interrupted by four 5 cm. gaps. The other maze situation is of circular form with the starting platform and food box side by side on the circumference of the circular path. The long path is formed by a great circle; one short route is formed by a small circle and the other by a short-cut over the diameter of the large circle. Various numbers (11 to 3) of varicolored rats were used. The criterion of mastery of a path was two successive correct runs. Upon the angle maze, no rat took the short cut to the food box without being trained to use it. After learning to use the short cut the rats continued to do so when allowed to choose between it and the long path. After a second period of training in which they relearned the use of the long path, 5 rats chose the short cut when a choice was given and 3 rats chose the long path. The short cut continued to be used by these five rats when its position was changed; i.e., when the place of separation of the short cut from the long path was moved. With a mirror image of the arrangement of these paths, the use of the short cut had to be learned anew. On the circular maze rats were trained to run the long path first and then the short path. The long path and short paths were then alternately obstructed by a clearly visible, white screen. It was necessary in the beginning for each rat to unlearn the previously learned choice, but after continued training the rats learned to alternate their choices according to the position of the screen. It is concluded that the probable end results of behavior determine that behavior. The results are critically considered in the light of Gestalt theory.—*R. Barker* (Stanford).

4389. **Dembo, T. Zielgerichtetes Verhalten der Ratten in einer freien Situation.** (Goal-directed behavior of rats in a free situation.) *Arch. néerl. de physiol.*, 1930, 15, 402–412.—The paths taken by animals in reaching food in an oblong box with 2 incomplete partitions and a food recess at one corner were studied. When one of the partitions was a glass plate, the animals usually followed their original path during the first test after its removal.—*C. P. Stone* (Stanford).

4390. **Geist, F. D. The brain of the *rhesus* monkey.** *J. Comp. Neur.*, 1930, 50, 333–375.—The author has prepared a complete series of sections of the brain of a *Macacus rhesus* monkey and stained them by a modification of the iron-hematoxylin technique. Drawings made from selected sections, which are indicated on a photograph of a reconstruction of the entire brain, are reproduced in this paper. The carefully labeled sections should serve as a readily available guide to those engaged in experimental investigation of the brain of the monkey. —*C. P. Stone* (Stanford).

4391. **Hooker, D., & Nicholas, J. S. Spinal cord section in rat fetuses.** *J. Comp. Neur.*, 1930, 50, 413–467.—Using a technique previously worked out and described by the junior author, these investigators sectioned the spinal cords of fetal rats without removing them from their respective places in the uteri. Some young were examined prior to the end of the gestation period and others were allowed to complete the term of gestation before undergoing examination. Prior to the fifteenth day no fetus made the slightest movement in response to having the cord transected, but after that age strong muscular contractions followed this form of stimulation. Rotation of the head and the rump followed injury to seventeen- and eighteen-day animals. No evidence of surgical shock was apparent in animals operated at any stage of development prior to birth. Upon examining the spinal fetuses it was found that all reflexes found in normal controls were also present in the operated animals. That is to say, no qualitative differences appeared. Likewise there were no apparent differences between the reactions of the young whose cords were transected before the time of spontaneous movements and those transected after that time. The chief differences between control and spinal animals were quantitative differences and a higher threshold of stimulation for the operated individuals. Postnatal observations of movements indicated that in the spinal animals there had been mechanical transmission of stimuli around or across the gap in the cord made by knife or cautery; this transmission is made possible by sensory motor overlap of the body-wall segmental musculature. Histological examination of the cords of suitable specimens showed not the least evidence of neural regeneration in the operated animals.—*C. P. Stone* (Stanford).

4392. **Kuroda, R. On the counting ability of a monkey (*Macacus cynomolgus*).** *J. Comp. Psychol.*, 1931, 12, 171–180.—By means of a special apparatus the author investigated the ability of a monkey to discriminate between one and two sounds and one and three sounds. The first problem was learned in 700 trials, but the second was never learned. At-

tempts to build up the second discrimination led to a disintegration of the first. The discrepancy between these results and Woodrow's findings is explained on the basis that the present experiment called for discrimination based upon the "absolute property of number," whereas Woodrow's investigation called for a discrimination "of temporal sequences of sound stimuli on the basis of relative 'more'ness."—*N. L. Munn* (Pittsburgh).

4393. **McAllister, W. G., & Berman, H. D. Visual form discrimination in the domestic cat.** *J. Comp. Psychol.*, 1931, 12, 207–242.—Visual form discrimination in one cat was studied by a method similar to that used by Katz and Revesz. Two forms, a square and a circle, of equal areas were cut from thin slices of minced ham sausage and were presented to the animal in varying numbers and arrangements. The animal learned first to choose the circle when only two forms, one square and one circle, were presented simultaneously and in random arrangement; and later to choose only circles when more forms, numbering up to twenty (ten squares and ten circles) were presented simultaneously and in systematically varied arrangements. The animal was able further to make the discrimination even though forms of different sizes, forms with circles or squares cut from the center, forms with irregular edges and forms from which a portion was cut away were used. During the training, punishment in the form of a small quantity of quinine sulphate was used in connection with the negative stimulus. Later when the use of the quinine sulphate was discontinued, the discrimination was made as well as when it was used. —*W. G. McAllister* (Illinois).

4394. **Muenzinger, K. F., & Gentry, E. Tone discrimination in white rats.** *J. Comp. Psychol.*, 1931, 12, 195–206.—The purpose of this experiment was to find out whether white rats could form discrimination habits with tones as stimuli. Previous experiments seemed to indicate that they form such habits only with noises as stimuli. A Y-shaped discrimination box was used with a vacuum tube oscillator and a magnetic loud-speaker as the source of the tone (1000 d.v.). In the first part of the experiment (diffuse tone situation) 5 rats were trained to go to the right when a tone was sounded 1 m. above the box and to the left when there was silence. A control group of 6 rats was trained in a similar way with a diffuse noise. All animals except one from the tone group attained the criterion of learning. For the 6 rats of the control group the tone was then substituted for the noise with the result that all except one attained the criterion. In the second part of the experiment (directive tone situation) identical loud-speakers were placed at the ends of the alleys of the discrimination box so that an animal could choose between a tone-filled alley and a relatively silent one. Out of 17 animals, 15 attained the criterion in an average of 165 trials. A number of checks were used in order to make sure that the animals responded to the tone and not to any extraneous cues. It is maintained that white rats are able to form discrimination habits with tones as stimuli.—*K. F. Muenzinger* (Colorado).

4395. **Muskens, L. J. J. On tracts and centers involved in the upward and downward associated movements of the eyes after experiments in birds.** *J. Comp. Neur.*, 1930, 50, 289–331.—*C. P. Stone* (Stanford).

4396. **Ngowyang, G. On the growth of the motor cells, from birth to maturity, at four levels in the spinal cord of the albino mouse.** *J. Comp. Neur.*, 1930, 50, 231–245.—No evidence of motor cell division was found in the spinal cord of the newborn mouse. The full number of motor cells had been attained prior to birth. During the first 20 days of post-natal life there is a relatively rapid increase in the number of large motor cells and the number at the cervical and lumbar regions is about three times that of the thoracic and sacral regions. After the 20th day the increase in number is much slower than theretofore, but continues throughout the first year of life (the scope of this study). The sizes increase rapidly during the first 20 days and at the end of the 30th day the cells are full-sized. Nuclei increase in size until the 10th day when they are maximal; then they decrease somewhat until the 15th day and thereafter remain approximately constant.—*C. P. Stone* (Stanford).

4397. **Papez, J. W., & Freeman, G. L. Superior colliculi and their fiber connections in the rat.** *J. Comp. Neur.*, 1930, 51, 409–440.—As reported in a previous paper, two groups of rats were studied for the purpose of determining what effect lesions of the superior colliculi might have upon learning, retaining, and relearning the light-discrimination habit as tested by the Yerkes light-discrimination box. Group A formed the habit subsequent to having the superior colliculi injured by cautery and Group B learned the task prior to being operated. The experimenters hoped to perform these operations on the brain stem without any injury to the visual connections with the cortex via the lateral geniculate body. In group A there seemed to be a certain degree of relationship between the extent of degeneration of colliculi and tecto-spinal tracts. When in addition there was involvement of the tecto-pontile tracts, thalamo-cortical fibers, or fibers to the subthalamus, a greater retardation in the formation of the light discrimination habit was found. Lesions in Group B were on the whole more severe than those of Group A, but a less accurate correlation between extent of degeneration of the colliculi and defect of retention and relearning could be made than for learning in the case of Group A because of the associated injuries to other pertinent neural tracts. In all cases having a severe injury to the tecto-spinal tract, however, there was a poor learning record. The greater part of this paper is devoted to strictly neurological data, since a previous discussion of the learning records has been given.—*C. P. Stone* (Stanford).

4398. **Peterson, G. M. A preliminary report on right and left handedness in the rat.** *J. Comp. Psychol.*, 1931, 12, 243–250.—Seven rats were tested in a food situation to determine preference in the use of their hands. Four were found to be predominantly right handed, two predominantly left

handed, and one was considered ambidextrous. They were then subjected to operation in the motor and somesthetic regions of the contralateral hemisphere of the cerebral cortex. As a result of the operations all animals except one transferred either abruptly or gradually to the use of the other hand. Histological controls of the areas affected by the operations were run on each animal. It is concluded that extensive destruction of the motor and somesthetic fields opposite to the preferred hand will lead to a transfer in handedness.—*G. M. Peterson* (Chicago).

4399. **Roure, L. Instinct et intelligence.** (Instinct and intelligence.) *Etudes: Rev. catholique d'intérêt gén.*, 1931, 207, 82–92.—(*Soc. Sci. Abst.* III: 13026).

4400. **Santschi, F. Nouvelles expériences sur l'orientation des Tapinoma par sécrétions dromographiques.** (New experiments on the orientation of *Tapinoma* by dromographic secretions.) *Arch. de psychol.*, 1930, 22, 348–351.—The author repeated the experiments of Cornetz, but completed them by experiments in which he took care to eliminate all influence of odor. In the latter case it was never possible to obtain a definite orientation of ants due to a special sense of orientation in space without external cues.—*M. R. Lambercier* (Geneva).

4401. **Tsai, L. S. Sucking preference in nursing young rats.** *J. Comp. Psychol.*, 1931, 12, 251–256.—This study was made on 29 litters of nursing young rats. The results show that they exhibit definite preference for certain pairs of nipples. The rank order for the various pairs of nipples from the most to the least preferred is as follows: the 4th, the 1st, the 2d and the 3d, the 5th and finally the 6th pair. Although some of the nipples once unused were sucked a week later and vice versa, the order of preference for the various pairs of nipples remains constant. The number of nipples sucked is positively correlated with the size of the litters—a coefficient of $+.52$. The rank order of preference for the corresponding nipples on the left and right side of the mother's body is identical. The total numbers of nipples sucked on the left and right side are practically the same. Sucking preference seems to be a function of the accessibility of the nipples in reference to the locations of the young.—*L. S. Tsai* (Chicago).

4402. **Windle, W. F. Normal behavioral reactions of kittens correlated with the postnatal development of nerve-fiber density in the spinal gray matter.** *J. Comp. Neur.*, 1930, 50, 479–504.—The behavioral reactions of kittens of various ages were observed from birth to maturity. Observations were based on 21 litters, totaling 59 individuals. At birth and at intervals up to the age of 129 days animals were killed and their central nervous systems removed and stained for histological examination. In this paper the author summarizes first the kitten's physiological reactions at specific ages and next the histological pictures of the nervous systems in these stages of the cat's development. After these summaries comes a tentative and suggestive correlation of behavioral reactions and histological features of the central nervous system. It is suggested that the new-born kitten is already too well developed with respect both to its nervous system and the evolution of its response mechanisms to make these correlations final and complete; the studies should be pushed back into the embryonal and fetal period of the cat's development, a move that the author proposes to make as the next step in continuing this investigation.—*C. P. Stone* (Stanford).

4403. **Windle, W. F., & Griffin, A. M. Observations on embryonic and fetal movements of the cat.** *J. Comp. Neur.*, 1930, 52, 149–188.—The present study was undertaken for the purpose of determining the course of behavioral development of kittens preparatory to correlating reactions with the embryological development of the nervous system. Observations were made upon 125 living embryos and fetuses taken from 34 pregnant cats. The ages of many young (always specified) were exactly known from mating records kept in the laboratory; others were estimated on the basis of known relationships between body length and fetal age. Preparatory to examining the fetuses, mothers were lightly anesthesized, carotid arteries ligated, and the brain stems transected at the level of the mid-brain. Under this condition the mothers were kept warm and allowed to lie quietly on the table for periods varying from one and a half to four hours after etherization was discontinued in order to insure complete recovery of mother and young from the influence of the narcotic. Movements of the young were observed under various conditions. The smaller ones could be observed only while in the amniotic cavity or just as they were being removed from the sack, but the older ones were observed more deliberately and systematically after being transferred to a warm saline bath. Many interesting details concerning fetuses of different ages were given by the author, and to separate them from their qualifying settings may give a distorted picture of the observed course of development; yet the following incomplete summary of responses of embryos and fetuses would seem warranted and not misleading: days of gestation 23, no movements at or prior to this age; 24, flexion of head and upper trunk; 24.5, passive flexion at shoulder (total flexion), response to slight pressure on fore limb, unilateral and ventral flexion of head and upper trunk, rotation of head; 25, flexion (ventral) of lower trunk, both passive and active flexion at shoulder; 26, rotation of trunk, flexion of elbow, movement of pelvis (trunk); 28, flexion at hip, reflex movements due to snout stimulation; 30, movements of masticator muscles; 33, flexion of tail, adduction of fore limb, flexion at knee; 36, movement of intercostal muscles, flexion at the ankle, tongue movements; 42, movements of diaphragm, flexion of digits (fore limb); 42–49, sucking reflex; 49, adduction of hind limb, flexion of digits (hind limb), breathing, facial muscles move, laryngeal muscles (phonation), scratch reflex (beginning, arhythmic); after 49, righting reflex (labyrinthine). Speaking in somewhat general terms, it may be said that the early movements of cat embryos and fetuses are massive and that the more discrete unit reflexes evolve from the more primitive, grosser patterns.

In some cases, however, the reflexes seem to appear without any observable relation to the primitive behavioral background. Also, it may be said that functional motor differentiation proceeds cephalocaudally and proximodistally; it is similarly followed by the spread of sensory reception areas.—*C. P. Stone* (Stanford).

[See also abstracts 4370, 4372, 4375.]

EVOLUTION AND HEREDITY

4404. **Jennings, H. S. Nature and nurture. The biological point of view.** *Survey*, 1931, **66**, 7–11; 70–71.—(*Soc. Sci. Abst.* III: 13061).

4405. **Johnson, R. H. Well-born children.** *Survey*, 1931, **66**, 36–47; 71–72.—(*Soc. Sci. Abst.* III: 13065).

4406. **Sampson, J. W. Ueber Zwillinge.** (Twins.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, **17**, 523–525.—*H. Marshall* (Stanford).

4407. **Snyder, L. H. Inherited taste deficiency.** *Science*, 1931, **74**, 151–152.—68.5% of an apparently unselected population find paraethoxyphenylthiourea exceedingly bitter, while the remaining 31.5% cannot taste it under any conditions; the deficiency is not a factor of age, sex or race, but appears to be due to a single recessive gene. The offspring of two tasting parents are 75% tasting, the offspring of one tasting and one non-tasting parent are 68% tasting, and the offspring of two non-tasting parents are all non-tasting.—*R. R. Willoughby* (Clark).

SPECIAL MENTAL CONDITIONS

4408. [Anon.] **Report of the mayor's committee on drug addiction to the Hon. Richard C. Patterson, Jr., Commissioner of Correction, New York City.** *Amer. J. Psychiat.*, 1930, **10**, 433–538.—Among the findings reported, based on treatment of 318 patients, are: a majority of the patients were handicapped either physically, or psychically, or both; these handicaps predispose to the use of drugs as a compensatory mechanism; character deterioration, with emphasis on constitutional defects, was observed in many cases of prolonged use of drugs; prognosis regarding rehabilitation depends on the integrity of the personality and on the environment. The report includes statistical information, discussion of therapeutic efforts, and a bibliography of 68 titles.—*S. J. Beck* (Boston Psychopathic Hospital).

4409. **Balkin, H. H. The new science of analyzing character.** Philadelphia: McKay, 1931. Pp. 313.—A system of character analysis based upon the intimate relationship between the mental and physical aspects of man. Judicious consideration of the following nine fundamental external characteristics of an individual makes possible accurate judgments concerning his traits of personality: color, form, size, structure, texture, consistency, proportion, expression and physical condition. Detailed principles of correlation between personality and each of these variables are presented in separate chapters. The author expresses indebtedness to the following for aid in formulating the principles presented: F. J. Gall, J. G. Spurzheim, G. Combe, O. S. and L. N. Fowler, K. M. H. Blackford, Wm. Windsor, and Nelson Sizer.—*B. Casper* (Clark).

4410. **Bien, E. Zur activanalytischen Therapie der psychischen Impotenz.** (Active analytic therapy of psychic impotence.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, **17**, 496–500.—Psychic impotence presupposes that the patient has a good psychic reason for this feeling of impotence and that his feeling is of value to him. The author relates the analysis of a case of impotence based on a mother fixation. After a short analysis (fifteen days) the patient recognized his difficulties. He married against his mother's wishes, and after a brief period of difficulty established satisfactory heterosexual relations.—*H. Marshall* (Stanford).

4411. **Clark, L. P., & Rourke, E. L. A study in child analysis.** *Med. J. & Rec.*, 1931, **133**, 551–554.—All the intimate details of sadistic manifestation in a girl of eight, whose struggles the analyst tried to direct toward something she could satisfactorily deal with, and thus bring insight to bear upon her problem.—*R. C. Givler* (Tufts).

4412. **Friedrich, W. Potenzstörung infolge von Diabete gras.** (Loss of sexual power as a result of fat diabetes.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, **18**, 16.—*H. Marshall* (Stanford).

4413. **Götz, B. Sexualität, Erkenntnis, Tod.** (Sexuality, knowledge, death.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, **17**, 486–496.—The book of Genesis suggests the existence of an ancient belief in the interrelationship between disobedience, knowledge, sexuality and death. A psychoanalytic study.—*H. Marshall* (Stanford).

4414. **Götz, B. Männliche und weibliche Symbole an altem Hausrat.** (Masculine and feminine symbols on antique household furniture.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, **18**, 29–36.—*H. Marshall* (Stanford).

4415. **Haasis, F. W. The "fire stopper."** *Science*, 1931, **74**, 222–223.—The author reports a conversation among road workers of Pennsylvania German stock on the Virginia-West Virginia boundary, revealing a belief in the existence of persons who can stop the progress of fires (associated in the case cited with immunity to the attacks of bees). The author feels that the speakers were sincere in their belief that the events reported actually occurred, and asks for other instances of the belief and for hypotheses as to its basis.—*R. R. Willoughby* (Clark).

4416. **Hirsch, L. Schlaflosigkeit, ihre Entstehung und Heilung.** (Sleeplessness, its origin and cure.) Hannover: Wilkens, 1931. Pp. 76. M. 2.00.—Hirsch regards sleep as a complex biological proceeding, the cause of which lies not only in the brain but also in the chemical composition of the blood. The periodic variation of the secretion of the endocrine glands with respect to its quantity and quality during sleeping and waking hours show these facts, as do also the different animal experiments, particularly the experiment of awakening animals from their winter sleep by the injection of thyroid gland extract. According to Hirsch, sleep disturbance is due to somatic and psychic causes or

a mixture of both. The most widespread are the psychic, which doubtless arise from over-excitability of the cerebral cortex. Hereditary predisposition also plays an important rôle here. Lack of external sleep conditions can also have a psychic sequel. Thus Hirsch tells of a chemist who, on leave from his factory, could not sleep all night because the accustomed noise of the machines was missing in going to sleep, while otherwise almost everyone needs quiet for sleep. On the ground of many years' experience, Hirsch believes that in the beginning sleeplessness is always an easily remediable trouble; however, even fairly serious cases can be cured by hydrotherapy or by psychic, dietetic and climatic changes. Only under narrowly defined indications does he make use of chemical medicaments, particularly if complications with heart trouble are present. Difficult cases belong unconditionally to the sanitarium or the clinic.—*L. Hirsch* (Berlin).

4417. **Huse, B. Does the hypnotic trance favor the recall of faint memories?** *J. Exper. Psychol.*, 1930, 13, 519–529.—Aside from those cases in which hypnosis may "remove a traumatic inhibition to recall" there "is a rather widespread impression among psychologists that somehow the hypnotic trance also lowers the threshold of recall for faint memories in general." Nonsense symbols as paired associates were learned by 8 students and recalled in both trance and normal states, 24 hours after the learning, which was done in the normal waking state. There was slightly more recall in the normal state than in the trance, the difference being of low statistical reliability. The author concludes that "there is probably no significant difference between recall in the trance and normal states of nonsense material 24 hours after learning."—*S. Renshaw* (Ohio State).

4418. **Jahn, E. Tiefenpsychologie und Seelenführung.** (Depth psychology and spiritual guidance.) Schwelm: Meiners, 1931. Pp. 115. M. 1.50.—The work begins with the fact that depth psychology, under the heading of which psychoanalysis and individual psychology are to be understood, is today no longer limited to professional research, but is interwoven with all of present-day culture. Ministry, charity and education are intimately connected with depth psychology. Depth psychology is involved even in the present-day spiritual conflict. This book attempts by an objective presentation, to weigh the pros and cons, avoiding any false popularization. After an introductory chapter on culture and soul guidance, a critical examination of psychoanalysis is undertaken. First of all, the course of experience as psychoanalysis teaches it, in relation to trauma, repression, the ego-censor, symptom and sublimation is considered. Although repudiating pansexuality, the essential sexual theories are positively evaluated. The criticism turns toward the fundamental problem of the origin of neuroses—the relation of pre-disposition to their acquisition. A chapter on psychoanalysis and ego inferiority deals with the relation between psychoanalysis and mysticism and warns of the dangers of the ego-cult. In the chapter on psychoanalysis and Christianity, the philosophy of life as laid down by Freud in his last work is discussed. The contrast between the Christian and psychoanalytical spiritual viewpoints is worked out. The relation of psychoanalysis to the Catholic confessional, to the Lutheran teaching of the way of salvation, and to the dialectical theology of the present is examined. Finally, the meaning of depth psychology for religio-ethical education is dealt with. A sinking in of value experiences into the young child's soul is posited. The book attempts an analysis of the young child's soul with its sucking power, its stimulus hunger and its power of preservation. The concluding chapter, which contains a short critical consideration of individual psychology, is a discussion of the feeling of inferiority and the striving for esteem. These ideas will be found in greater detail in a forthcoming book by the same author called *The Will to Power and the inferiority feeling: a critical analysis of individual psychology.* (Berlin: Warneck.)—*E. Jahn* (Berlin).

4419. **Künkel, F. Charakter, Wachstum und Erziehung.** (Character, growth and education.) Leipzig: Hirzel, 1931.—The development of human character is here set forth dialectically, that is, as a reciprocal relationship between subject and environment. The delicate child responds to a harsh environment with retreat, discouragement and spiritual impoverishment, whereas it would respond with an especially high grade of individual development to pleasant, gentle treatment. The robust, gifted child responds to a too easy environment with uncontrollable arrogance and insolence; on the other hand, in a somewhat rude environment, it develops into a sound and healthy child. Thus there are four types of children: those who, because of harsh upbringing, either become completely passive and dull, or, if the temperament seeks activity, crassly egotistical, successful individuals, or perhaps even criminals. Those who grow up under treatment that is too easy either become boasters, very irritable and bad-tempered people who are loath to exert themselves, or, if the coddling is carried to the point of discouragement, become passive, fretful people, always thinking of the past, who may arouse the pity of others continually. The presentation is founded upon the psychology of Alfred Adler, but goes beyond him in two ways: in the consistency with which the dialectical mode of thought is carried out, and in the noteworthy attention given to the actual social circumstances necessary for the formation of developing characters.—*F. Künkel.*

4420. **Loeb, H. Untersuchungen über Sexualität beim Manne.** (Investigation of sexuality of man.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 18, 1–15.—Sexuality in man stands in definite relation with the production of gonad secretion; it is most marked in the sexually mature young man, and decreases gradually with age.—*H. Marshall* (Stanford).

4421. **Miller, J. A. Psychogenic menorrhagia.** *Med. J. & Rec.*, 1931, 134, 84–86; 109–111.—Endocrine balance may become psychically disturbed and thus provide a vicious circle of causation for menorrhagia. Five cases are related in which dread, either of coitus or of pregnancy, was the removable cause of the disorder.—*R. C. Givler* (Tufts).

4422. **Peck, M. W. The meaning of psychoanalysis.** New York: Knopf, 1931. Pp. xvii + 273. $2.50.—This presentation of the general theory of psychoanalysis is intended for medical students and others in its application in the treatment of nervous illness. It is "elucidation rather than argument." Technical terms are reduced to a minimum. A review of the life and work of Freud, with references to the schools of Jung, Adler, and Rank, outlines the history of psychoanalysis. The psychology of the unconscious mind is governed by laws other than those applying to consciousness. There is no time relation; cause and effect are differently determined; phantasy is indistinguishable from reality; there is no consistency; the symbolic is interchangeable with the actual. Three major processes involved in nervous illness are mental conflict, repression, and symptom formation. The theory is built around the conception of sexual instinct, or libido, as the vital motivating force. Libido fixation may occur at the period of infantile sexuality or the latency period, before the attainment of adult sexuality. The Oedipus situation is "the nuclear complex of the neuroses." The principles of treatment involve a reconstruction of the past and a re-evaluation of the cause of conflict, with a new and better solution and a reorganization of the emotional state upon an adult level. Technique of treatment is characterized by: (1) the maintenance of a passive rôle by the physician; (2) the establishment of a special emotional relation, transference, between analyst and patient; (3) the use of free association by the subject; (4) the use of dreams; (5) a minimum of attention to symptoms. To make clear the method of treatment, several chapters are devoted to reports of the progress of two analyses.—*M. P. Montgomery* (Faribault, Minn.).

4423. **Pfister, O. What transformation does psychoanalysis require in ethics and moral education?** *Psychiat. Quar.*, 1931, 5, 407–422.—The writer states that according to the traditional standard of morals Freud must be highly esteemed. He believes that the science founded by Freud will render most valuable service to ethics, and that it will also be of great assistance in the teaching of morals. The evaluation and judging of moral things is never in itself an analytical activity, but psychoanalysis helps to form ethical demands. The writer further states that he himself, as educator and minister, formerly smoothed out the moral and religious complications which arose from the unconscious of his patients, as is done by the physician. He later discovered that many character defects yielded to the primary, purely hygienic, analytic treatment and found that certain moral defects appeared as neurotic symptoms in healthy and sick individuals. From this discovery arose his belief that ethics must take spiritual and mental health into consideration. Ethics is itself a hygiene of the individual and of society. He emphasizes the importance of what he calls the principle of compensation. This he puts in the following words: If a youth is to be freed from immoral behavior a compensation, free from objection and according more satisfaction, must be procured for him in return. Without the aid of psychoanalysis, probing deeply into the unconscious, it is naïve to attempt to win a higher synthesis with more noble, more satisfying moral values.—*E. T. Burr* (Vocational Service for Juniors).

4424. **Rank, O. Die Analyse des Analytikers und seiner Rolle in der Gesamtsituation. Technik der Psychoanalyse III.** (The analysis of the analyst and its rôle in the general situation. The technique of psychoanalysis: III.) Leipzig & Vienna: Deuticke, 1931. Pp. 162. M. 9.00.—This is the third and last volume of a *Technique of Psychoanalysis*, which began in 1926 with *The Analytical Situation* and was followed in 1929 by *The Analytical Reaction*. The first part laid stress upon the importance of the analytical situation itself as the essential therapeutic factor, in opposition to the classical Freudian method in which the memories and unwished-for recollections of past experiences are the crux of the analytical situation. In the second part, the specific therapeutic agent of the analytical situation is characterized as the manifested will of the patient, the negative manifestations of which (designated by Freud as resistance) must be understood and constructively evaluated as such. The present third volume depicts the part which falls to the therapist in the reconstruction of the will to sickness into the will to health. But neither the sickness nor the recovery process can be understood and therapeutically evaluated, according to the author, unless the whole process of analysis in its symbolical meaning for the patient is grasped. To this presentation and explanation of the neurotic type, as well as to the analytical situation produced by it, the first half of the work is devoted, while the therapeutic aspect is treated separately in the second half of the book. This part follows not only for the sake of comprehensiveness, but also because it marks the sharply dividing line which the author, in contrast to other analysts, draws between theory and therapy. In opposition to his ideologically described theory of psychoanalysis, his will-therapy, which the author describes as dynamic, completely repudiates the use of a theory of neurosis for the explanation of the symptoms of patients; on the contrary, dynamic therapy uses the play of the forces of emotion which are present in any given analytical situation itself, in order to bring the patient himself to a new orientation. But this repudiation of an ideology brought in from without for the explanation of the neurosis as such, also means the repudiation of a technique that can be taught in detail, which naturally cannot exist in this self-created therapy of the individual. But this radical analysis of the analyst and the analytical situation leads to still further consequences. It not only gives no theory and technique which might be used in every case, but it does not even give a cure in the medical sense of the word. For neurosis is not an illness, but a dynamic conflict which arises from the environment of the individual, and the cure consists in a more or less perennial balance of this play of forces. But reality is necessary for this balance, and it is true, not only is a forced adjustment to the same necessary, but an active and constructive use of the same in the sense of a creation is also necessary. In

other words, as the neurosis has social causes, so the victory is the same—a constructive transformation of the negative attitude toward environment into a positive one. Life cannot be lived only passively, but must also be lived positively, if it is not to be wasted in fear of life.—*O. Rank* (Paris).

4425. **Sherman, M. How mental conflicts help to develop children.** In *Toward Understanding Children. Univ. Iowa Extension Bull.*, 1931, No. 261, 69–77.—Civilization and the development of conflicts go hand in hand. Conflicts can be divided into the detrimental and the useful. Useful conflicts are those which serve as a motive for greater activity and productivity, and which help us attain our desires. Detrimental conflicts are those which by their force of emotional tension detract from our progress. Conflicts may be judged in three ways—by the issues they involve, by their frequency and by their intensity. The type of home training and the ideals and ambitions of the parents are determining factors in the kind of mental conflicts children develop. Conflicts determine not only the behavior of an individual in the home or in the community, but also the ambitions and attitudes of the nation. Conflicts spur us on, and in the mental activity which results intelligence develops.—*B. Wellman* (Iowa).

4426. **Spitzer, R. Pseudo-Impotenz.** (Pseudo-impotence.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 18, 16–17.—The cases cited of so-called impotence arose from inadequate sex knowledge and practice.—*H. Marshall* (Stanford).

4427. **Wile, I. S. Shaping the personality of the individual.** *Med. J. & Rec.*, 1931, 133, 539–554; 576–580.—Reviewing and commenting upon many definitions of personality both ancient and modern, the author emphasizes the physical, mental, and social factors which determine "the sum total of habitual characteristics that constitute one individual as opposed to all others."—*R. C. Givler* (Tufts).

4428. **Williams, T. A. Morbid fears; their mechanism and treatment.** *Med. J. & Rec.*, 1931, 133, 543–545.—The monophobe differs from the panophobe in not having a background of inherent emotional instability; he is therefore more readily amenable to treatment of a frank and sympathetic nature. Three cases are cited; the first, of a girl whose fear of the dark was removed by "reeducative persuasions after short isolation"; the second, of an "obsession of inferiority leading to four attempts at suicide, cured by reeducative persuasions without isolation"; and a third, where a phobia induced by a visit to a zoo was aborted by an affectionate demonstration of the absurd and by the induction of a simple substitution.—*R. C. Givler* (Tufts).

[See also abstracts 4538, 4549, 4553, 4602, 4609.]

NERVOUS AND MENTAL DISORDERS

4429. **Adams, G. The golden age of mental hygiene.** *Amer. Mercury*, 1931, 23, 93–102.—Outlines the history of mental hygiene and its application to social work, education, and industry.—*J. T. Metcalf* (Vermont).

4430. **Appel, K. E. Psychiatry in industry.** *Occup. Therap. & Rehab.*, 1931, 10, 207–216.—Emotional and instinctive adjustments are important. Daydreams are quite indicative of such maladjustments. Similarity between industrial interviews as developed by the Western Electric Company and the psychoanalytic interview is noted; the method is conversational rather than a questionnaire. Advantages of this method are the arousal of a feeling of confidence, emotional release, and feeling of recognition on the part of the employee or patient. Typical cases are described.—*H. E. Burtt* (Ohio State).

4431. **Bender, L., & Schilder, P. Unconditioned and conditioned reactions to pain in schizophrenia.** *Amer. J. Psychiat.*, 1930, 10, 365–384.—16 catatonic patients were studied in an attempt to establish in them a conditioned reaction to light (in the case of too inattentive patients, to a touch on the forehead). A strong electric shock served as the natural stimulus. An important finding is "that the defense of the individual no longer seems integrated. The pain is not appreciated in the sense of a life situation but as a local disagreement or something going on in the bodily sphere." It was found that for patients who lent themselves to the experiment, the conditioned reaction to pain could be established. These conditioned reactions were partly local, partly general. "In the cases of deepest stupor the response becomes a more and more local one. It is as if only a part of the body would react to the anticipated pain."—*S. J. Beck* (Boston Psychopathic Hospital).

4432. **Bleuler, E. P. The physiogenic and psychogenic in schizophrenia.** *Amer. J. Psychiat.*, 1930, 10, 203–211.—Forms and signs in schizophrenia are discussed. Psychological considerations explain some but not all the phenomena. A morbid predisposition is necessary for the production of a schizophrenic reaction. The "complexes" do not cause, but only shape the clinical picture. Since, in schizophrenia, it is the highest control which fails, this failure "must be referred to a disturbance of the connections of all the individual functions; for this highest control (*Oberleitung*) is not a special function of our soul, but the outcome, the integrated summarizing of all the individual functions." Evidence of the physical origin of the disorder is seen in the fact that "in all chronic cases, decreases in the number of ganglion cells and certain changes in the glia furnish proof that we are in presence of a brain lesion, of course not in the sense that the histological finding is the direct foundation of the primary psychic symptoms; it is merely an indicator of the existence of brain lesions, which on the one hand express themselves as psychic, and on the other hand as anatomical."—*S. J. Beck* (Boston Psychopathic Hospital).

4433. **Boeters, —. Ein Lehrer als Exhibitionist.** (A teacher as exhibitionist.) *Monatssch. f. Krim.-psychol. u. Strafrechtsref.*, 1931, 22, 214–217.—Reports the case of an exhibitionist, who after complete castration was entirely freed from his perversion and was again able to take up his activities as teacher.—*W. Beck* (Leipzig).

4434. **Bott, E. A. Parent education and a community program of mental hygiene.** In *Toward Understanding Children. Univ. Iowa Extension Bull.*, 1931, No. 261, 78–85.—The concept of mental hygiene has passed through three stages. The oldest view identified mental hygiene with mental disease, the second stage emphasized exceptional folk who were not entirely well yet not obviously ill, and the third stage emphasizes prevention through education. Mental hygiene for normal people who are mentally well is becoming a leading social movement. It has extended its range to pertain to everybody and is placing emphasis on the genetic approach. There is need of a more accurate knowledge of the actual causes in daily life which carry people from mental health into mental stress and poor adjustment. Efficient mental hygiene for normal people is an intricate community enterprise which involves hospitals and clinics, but likewise homes and schools, and requires the cooperative assistance of parents and teachers as well as of technical hygienists.—*B. Wellman* (Iowa).

4435. **Bourguignon, G., & D'Heucqueville, G. Chronaxie et troubles profonds de l'expression mimique chez une catatonique.** (Chronaxy and profound difficulties of mimic expression in a catatonic.) *Ann. méd.-psychol.*, 1931, 89, 461–471.—The chronaxy of the face muscles for a normal person expressed in σ were: one group up to 16, and another up to 36 for the depriments, and one group up to 44 and another up to 72 for the levators. A catatonic patient with distorted facial expressions showed some marked changes from these normal chronaxies. The depriments were normal, as were the levators of small chronaxy (those normally equal to the depriments). On the contrary, the levators of large chronaxy (normally equal to twice that of the depriments) were about twice their normal size. The distorted facial expressions could then be explained physiologically by laws previously formulated by Bourguignon, that (1) all the muscles of a segment having the same chronaxy contract together, and (2) the tone is a function of the chronaxy and diminishes when that is augmented. The variations in chronaxy were not found in the nerve trunks but only in the intra-muscular nerves. These changes may be due to a reverberation of a functional disorder in the nerve centers.—*M. B. Mitchell* (George School, Pa.).

4436. **Brown, S., II, & Cheney, C. O. Community service in the state hospitals.** *Psychiat. Quar.*, 1931, 5, 461–467.—This article consists of an explanation and discussion of a new service that has been recommended for clinics, after-care and community work in the state hospitals. The activities of this service include the management of parole problems, the establishment of mental hygiene clinics in the district, contact with children's courts, welfare agencies, and courts for adults. Public education in the way of lectures, pamphlets, leaflets and radio talks would fall within the province of the director of this service. This plan was discussed in 1924 when the position of deputy medical inspector was established, but additional duties being assigned to this inspector, the work was never pushed. It is hoped that the full program may now be carried through.—*E. T. Burr* (Vocational Service for Juniors).

4437. **Butterworth, T., & McIver, J. Paranoia with report of a case.** *Amer. J. Psychiat.*, 1930, 10, 267–273.—It is indicated that the case reported has gone through the first of the classical stages of true paranoia (the stage of analytical concentration), and has launched on the second stage (delusional explication), with signs warranting suspicion that he is about to enter the third and final stage (transformation of personality).—*S. J. Beck* (Boston Psychopathic Hospital).

4438. **Capgras, L., Marchand, —, & Vié, —. Deux cas d'encéphalite psychosique.** (Two cases of psychotic encephalitis.) *Ann. méd.-psychol.*, 1931, 89, 515–521.—Except for the acute terminal phase these cases gave no symptoms to indicate a diagnosis of encephalitis. One of them had a group of atypical mental confusion symptoms, and the other rather typical dementia praecox symptoms.—*M. B. Mitchell* (George School, Pa.).

4439. **Claude, H., Migault, P., & Lacan, J. Folies simultanées.** (Simultaneous insanity.) *Ann. méd.-psychol.*, 1931, 89, 483–490.—Two cases are reported in which illegitimate daughters became insane simultaneously with their mothers.—*M. B. Mitchell* (George School, Pa.).

4440. **Claude, H., Bourgeois, P., & Masquin, P. Troubles du langage dans un cas de psychose paranoïde.** (Language difficulties in a case of paranoid psychosis.) *Ann. méd.-psychol.*, 1931, 89, 490–500.—An analysis is given of the patient's language difficulties, which include dyslogia and dysphasia. They occur only when the patient is excited or tired, when he is asked about his delusion, or when he speaks for a long time.—*M. B. Mitchell* (George School, Pa.).

4441. **Coriat, I. H. Progress in psychiatry.** *New England J. Med.*, 1930, 203, 424.—(*Soc. Sci. Abst.* III: 13168).

4442. **Cottrell, S. S., & Vibber, F. L. Report of simultaneous occurrence of psychosis in all the members of a family group.** *Amer. J. Psychiat.*, 1930, 10, 287–291.—The psychosis occurred in a strong religious setting which pervaded the entire household.—*S. J. Beck* (Boston Psychopathic Hospital).

4443. **Courbon, P. Hypomanie consécutive à une confusion mentale posttraumatique.** (Hypomania following a post-traumatic mental confusion.) *Ann. méd.-psychol.*, 1931, 89, 478–483.—This is a case of a 67-year-old woman knocked down by an automobile. For two days she remained quite unconscious, and inert for three days. Then there followed a period of confusion, with amnesia for the accident and the days following. Little by little she became more loquacious until she became hypomanic and it was impossible to keep her in the general hospital. Within a month she was apparently normal. The confusion may have been due to inhibition of secretions in the endocrine glands, and the hypomania may have been a reaction to the inert period.—*M. B. Mitchell* (George School, Pa.).

4444. **Courtois, A. Flexion réflexe unilaterale de la jambe par flexion de la tête en cas de coma par lesion cérébrale circonscrite.** (Unilateral flexion of the leg by flexion of the head in case of coma due to a circumscribed cerebral lesion.) *Ann. méd.-psychol.*, 1931, 89, 506–511.—Two cases are reported of hemorrhagic cortical lesions causing coma in which a flexion of the head produced a flexion of the leg on the same side.—*M. B. Mitchell* (George School, Pa.).

4445. **Courtois, A., & Mareschal, P. Délire hallucinatoire consécutif à une encéphalite aiguë azotemique.** (Hallucinatory delirium following an acute uremic encephalitis.) *Ann. méd.-psychol.*, 1931, 89, 472–475.—This is a case history of a woman just past the menopause. Her first symptoms were those of broncho-pneumonia and renal disturbances, followed by mental symptoms. At first these were of an acute delirium type characterized by confusion and visions. This changed to stupor with an acute physical condition including retention of urine. As this cleared up, a hallucinatory syndrome developed with auditory and olfactory components, cenesthesis, and ideas of influence. This has made her entirely helpless and been quite fixed for a period of three months.—*M. B. Mitchell* (George School, Pa.).

4446. **Cowles, E. S. A new pathology and treatment of chronic alcoholism.** *Med. J. & Rec.*, 1931, 133, 417–421; 472–476.—A detailed account of clinical treatments as evidence that with some persons "alcohol sets up an irritation in the meninges, and when this meningeal irritation is developed, and the edema in the brain increases, they are no longer able to control themselves with respect to drink." It is the author's surmise that "these long established edemas, untreated, account for the alcoholic dementias so common in later life." "Lumbar puncture, accompanied by the use of any medication that will help to reduce the intercranial pressure and meningeal irritation constitutes the only treatment which, in my hands, has given any degree of uniform and lasting results." Alcohol should be totally withdrawn, and no narcotic substituted. Periodic sprees give an indication of increased intercranial pressure accompanied by excess of globulin and albumen; it is the relieving of these symptoms, not moral resolve or religious healing, which successfully removes the abnormal craving for drink.—*R. C. Givler* (Tufts).

4447. **Cronin, H. J. Comparative therapeutic results.** *Med. J. & Rec.*, 1931, 133, 545–549.—Three case histories are related by a physician who has ceased to mistake psychiatric cases for medical ones. Case 1 deals with the recovery of a man on the verge of a physical and mental collapse, who had been driven to homosexual practices by a wife who required either continence or extra-vaginal sex performances. Case 2 relates the recovery of a young woman from pulmonary disorders aggravated by an unsuccessful autoerotic escape from unsatisfactory heterosexual experiences. Case 3 analyzes the anxiety hysteria of a young woman whose stomach disorder was traceable to the combination of unsatisfactory autoerotic and incestuous impulses.—*R. C. Givler* (Tufts).

4448. **Delmas, A. Les relations de l'hypocondrie avec la constitution paranoïaque.** (The relation between hypochondria and the paranoic constitution.) *Ann. méd.-psychol.*, 1931, 89, 526–527.—A summary and discussion of an article to appear in the next issue of *Ann. méd.-psychol.*—*M. B. Mitchell* (George School, Pa.).

4449. **Fried, R. S. Training children in emotional control and expenditure of energy.** *Psychiat. Quar.*, 1931, 5, 499–505.—The changed attitude of educators toward children's behavior is noted. The technique used by the writer to develop purposeful behavior in children is outlined. The lessons consist solely of awakening within the child a desire for self-direction. To be able to accomplish things against one's inclination and desire is an excellent preparation for life. Self-mastery is begun by teaching the child to close his eyes and relax completely. When the child has mastered the fundamentals of calmness and relaxation, lessons in purposeful behavior are inculcated.—*E. T. Burr* (Vocational Service for Juniors).

4450. **Fuller, R. G., & Johnston, M. The duration of hospital life for mental patients.** *Psychiat. Quar.*, 1931, 5, 552–582.—This is the second paper on the occurrence and social significance of mental diseases in New York state. It was found that the average duration of hospitalization during a 16-year period from time of first admission is 3.7 years for males and 4.7 years for females. The same general trend in regard to duration of hospital life holds for each sex, but for males the period of hospitalization is shorter than for females. Variations in duration of hospital life according to psychosis are not as great as might be expected. There are several tables and graphs to illustrate the findings.—*E. T. Burr* (Vocational Service for Juniors).

4451. **Goran, A. Neuropsychiatric considerations of myoclonia.** *Med. J. & Rec.*, 1931, 133, 549–551.—A case of unilateral myoclonia is discussed from the organic neurological and psychopathological viewpoints, and emphasis is laid upon regarding such a disorder from every angle.—*R. C. Givler* (Tufts).

4452. **Gouriou, P., & Mondain, P. Pseudo-coenesthopathie.** (Pseudo-coenesthopathy.) *Ann. méd.-psychol.*, 1931, 89, 524–526.—A woman 33 years old complained of pain in the tongue, palate, and throat. Excessive complaining even after negative physical examinations led to a diagnosis of coenesthesis, until her teeth became loose. Treatment for pyorrhea effected a cure.—*M. B. Mitchell* (George School, Pa.).

4453. **Haas, L. J. Precision in presenting occupational therapy to the mentally and nervously ill.** *Occup. Therap. & Rehab.*, 1931, 10, 241–249.—A brief history of the occupational therapy movement for the past 100 years. The therapist, through stimulating the patient to engage in activities, aims to awaken interest, develop concentration, restore coordination, revive hope, inspire confidence, and give satisfaction through personal achievement. The equipment and organization of shops are described. The patient who cannot stand the noise of others

can first work on a noisy job alone and gradually shift over. A patient unable to perform a particular task is discouraged if placed with others who can do the task well. Unpleasant associations with the therapy work due to some previous experience must be considered.—*H. E. Burtt* (Ohio State).

4454. **Hart, B. Psychopathology; its development and its place in medicine.** (2nd ed.) Cambridge: Univ. Press, 1929. Pp. 178.—The Goulstonian Lectures of 1926, originally published in *Lancet* and *Proc. Roy. Soc. Med.* An essay entitled *The Conception of Dissociation*, originally published in *Brit. J. Med. Psychol.* (1926), has been added in the present edition.—*R. R. Willoughby* (Clark).

4455. **Hartwell, S. Community work in a state hospital.** *Bull. Mass. Dept. Ment. Dis.*, 1930, 14, 9–11.—(*Soc. Sci. Abst.* III: 13169).

4456. **Henry, G. W. Experimental catatonia.** *Psychiat. Quar.*, 1931, 5, 441–460.—This is a comparative study of the action of certain known toxic substances, on the basis of reactions observed in animals. Following the administration of certain toxic substances an attempt is made to draw conclusions regarding the nature and causes of acute catatonia. The writer states that catatonic motor phenomena may be elicited experimentally in the higher animals solely through the administration of any of several toxic substances, of which bulbocapnine seems to be the most effective. Some of these substances are products of human metabolism. As the state of intoxication thus induced increases there seems to be loss of function of the most recent phylogenetic acquisitions of the nervous system. In other words, there is an interference with the function of the cerebral cortex and dominant action of the extra-pyramidal system, particularly of the basal ganglia. A regression therefore occurs at the physiological level of integration, and it is probable that in man this regression is concomitant with the regression at the psychological level.—*E. T. Burr* (Vocational Service for Juniors).

4457. **Hopkins, C. D. Mental deficiency in England.** *Soc. Service Rev.*, 1929, 3, 619–631.—(*Soc. Sci. Abst.* III: 13124).

4458. **Hoskins, R. G., & Sleeper, F. H. The thyroid factors in dementia praecox.** *Amer. J. Psychiat.*, 1930, 10, 411–432.—Thyroid treatment was administered to 16 patients out of 18 diagnosed as suffering from thyroid deficiency, among a total of 130 cases of dementia praecox. Improvement was noted in 14, or 88% of the treated cases, and 5 were able to go home. A control group of 41 patients was also studied. The authors conclude that thyroid deficiency plays a rôle in more than 10% of state hospital cases of dementia praecox, and "in properly selected cases thyroid medication in adequate dosage and for a sufficiently prolonged period results in significant improvement."—*S. J. Beck* (Boston Psychopathic Hospital).

4459. **Jelliffe, S. E. Some random notes on the history of psychiatry of the middle ages.** *Amer. J. Psychiat.*, 1930, 10, 275–286.—Gleanings are offered from scattered sources, medieval and modern, on the history of medieval psychiatry. Liberal source reference is included.—*S. J. Beck* (Boston Psychopathic Hospital).

4460. **Kahn, E. Psychopathic personalities.** (Trans. by H. F. Dunbar.) New Haven: Yale Univ. Press, 1931. Pp. xii + 521. $5.00.—An exposition, largely from the typological and descriptive point of view, of the structures of personality known as psychopathic. The descriptions are presented in detail. Although the author expressed a good deal of admiration for the genius of Freud, his discussion is static and Kraepelinian rather than dynamic. There is a 20-page bibliography of German writings.—*R. R. Willoughby* (Clark).

4461. **Keschner, M. Nervous complications of pernicious anemia.** *Med. J. & Rec.*, 1931, 133, 598–601.—"Neuropsychiatric complications occur in from 75% to 80% of the cases of pernicious anemia." Paresthesias, cramps, disturbances in sphincter control, ataxia with clumsiness, vibratory disturbances, weakness, loss of orientation, lack of insight, memory defects with confabulation, indifference and apathy, epileptic seizures, occasional hemiplegias and monoplegias, dimness of vision, optic neuritis, and hallucinations of smell are all possible complications. Liver therapy, while abolishing the psychological disorders, does not seem to bring improvement into the objective neural signs of this widely-spreading disorder.—*R. C. Givler* (Tufts).

4462. **Levin, H. L. Recovery in dementia praecox.** *Psychiat. Quar.*, 1931, 5, 476–491.—The question arises as to the accuracy of diagnosis in this report of 35 cases discharged over a four-year period from the Buffalo State Hospital as "recovered" dementia praecoxes, and the writer states that he concedes that differences in opinion as to diagnosis undoubtedly exist. Brief reviews of the positive findings in each of these cases is given. 17 were of the paranoid type, 10 catatonic and 5 hebephrenic. The simple type (characterized by apathy and peculiar behavior without delusions or hallucinations) was conspicuous by its absence. In 20 of the 35 cases it was definitely shown that the patient was subjected to some physical or mental stress prior to the development of the psychosis, and there seemed to be a direct causal relationship. The cases are summarized and, as a by-product of the study, the writer suggests that the low recovery rates in state hospitals generally may be due to the dictum that a dementia praecox case cannot recover. The writer suggests also that all units of the state hospital system use identical definitions and identical yardsticks so that statistical data may show exact indications of psychiatric conditions and trends.—*E. T. Burr* (Vocational Service for Juniors).

4463. **Liuzzi, F. I canti dei popoli e un instituto internazionale per la musica popolare.** (Folk songs and an international institute for popular music.) *Nuova antologia*, 1930, 274, 390–397.—(*Soc. Sci.* Abst. III: 11868).

4464. **Mallet, R., & Gouriou, P. Délire coenesthésique.** (Coenesthetic delirium.) *Ann. méd.-psychol.*, 1931, 89, 521–524.—A case of a 64-year-old woman whose chief complaint was that she could not eat any solid food because a bone from the head of

a calf was stuck in her throat. Examinations of the throat were all negative. Occasionally she substituted a stomach complaint for this one.—*M. B. Mitchell* (George School, Pa.).

4465. **Malzberg, B. A statistical study of the prevalence and types of mental diseases among children and adolescents.** *Psychiat. Quar.*, 1931, 5, 511–537.—The conclusion is reached that mental disorders in the age groups under 20 years of age, when measured by first admissions to the New York civil state hospitals, have shown an increasing prevalence since 1923. Dementia praecox constitutes the group with the highest rate of first admission. Psychoses with other brain or nervous diseases (notably encephalitis lethargica) are playing an increasingly important part in the mental disorders of children, especially in the state of New York. The group "without psychosis" constitutes a large part of first admissions, and indicates that state hospitals are receiving a large group of children presenting difficult behavior disorders not amounting to a psychosis. Epileptic psychoses and psychoses with mental deficiency have high rates of first admission, indicating a close relation between mental disorders, epilepsy and mental defect. There was found to be an almost complete absence of the organic psychoses. On the other hand, the psychoneuroses and neuroses, together with psychopathic personality, constitute a relatively large group.—*E. T. Burr* (Vocational Service for Juniors).

4466. **Martz, E. W. A phase of unsuccesaful parole from state schools.** *Psychiat. Quar.*, 1931, 5, 506–510.—The parole of the mentally deficient from state schools following a period of training has become a general practice throughout the country. This paper deals only with those boys and girls who are placed in homes other than their own, whose services are secured by people who are not immediate relatives. The failure on parole of the group under discussion is due to some faulty situation in the parole home itself. The writer states that it is desirable that some of the conditions existent in the foster home, which are found to militate against a successful adjustment of the boy or girl, be described. The most frequent of these are: (1) a sudden change in the emotional life of certain patients, which may bring about an incompatible situation; (2) either the lack of adequate recreation, or an over-dose of it, which often leads to maladjustment; (3) incompetent supervision, which may result in an unsatisfactory situation. A few case histories are given to illustrate these causes for the maladjustment of paroled mental defectives.—*E. T. Burr* (Vocational Service for Juniors).

4467. **Meggendorfer, F. Gerichtliche Psychiatrie.** (Judicial psychiatry.) Berlin: Heymanns, 1931. Pp. 199. M. 8.00.—The book contains first a chapter on the activities of psychiatric experts in general. The duties and rights of the expert according to the laws of Germany and Austria are thoroughly discussed. The chapter also contains an introduction to the rendering of verdicts, both written and verbal. The single points of bodily and physical examination are worked out with particular regard to verdicts, so that even a less experienced physician will encounter no gross omissions in the use of this book. Ten specimen examples of an expert's opinion in different cases illustrate the outer form of verdicts and their inner structure. The discussions of the criminal and civil laws of Germany and the western nations, which come into the consideration of the psychiatric expert, make up the main part of the book. Especially exhaustively treated in the criminal rights section are punishment, capacity for trial, sanity, capacity for being a witness and taking oath, infliction of punishment; in the civil rights section, permission to do business, lawsuits, trusteeships and dissolutions, provisional guardianship, stewardship, contested marriage, divorce because of illness, and capacity for being a testator; these are all discussed in the light of the present and future legislation of Germany and Austria in their application to the different forms of psychical disturbances. At the same time, the German opium law and the laws of German social, illness, accident, and invalid insurance and military settlement are also discussed. A third chapter contains a description of the most important psychical sicknesses and morbid conditions and the criminal and civic rights judgments concerning them.—*F. Meggendorfer* (Hamburg).

4468. **Oliver, J. R. Fear; the autobiography of James Edwards.** New York: Macmillan, 1931. Pp. viii + 366. $1.00.—Reprint. For abstract see 1: 2412.—*J. C. Spence* (Clark).

4469. **Pagès, L. Le sentiment de la responsabilité morale dans les procédés contemporains de la défense sociale.** (The sentiment of moral responsibility in contemporary social defense processes.) *Rev. int. de sociol.*, 1930, 38, 567–578.—(*Soc. Sci. Abst.* III: 13101).

4470. **Patry, F. L. A glimpse into the modern progressive psychiatric storehouse for the best functioning of the educator.** *Psychiat. Quar.*, 1931, 5, 492–498.—The writer quotes at length from the address made by Adolph Meyer at the National Conference of Social Workers in 1925, and then suggests some ways by which the goal set by Meyer may be reached. He stresses the fact that the functioning of the individual as a whole, in a dynamic, genetic and social setting must be considered. Not only his physiology, neuro-anatomy and ability in studying the three R's, but also his assets and liabilities, his ambitions, interests and strivings, his hopes, successes and satisfactions, as well as his failures and shortcomings, his habits, emotions, anticipations, and capacity for balance of these functionings and forces must be studied. The writer begs each reader of his article to send for the free publications offered by the N. Y. State Mental Hygiene Dept., Albany, N. Y., and the State Committee on Mental Hygiene at 105 East 22nd St., New York City.—*E. T. Burr* (Vocational Service for Juniors).

4471. **Pollock, H. M., & Mack, G. M. Occupational therapy in New York civil state hospitals, 1930.** *Psychiat. Quar.*, 1931, 5, 538–551.—All of the New York civil state hospitals maintained large,

well-organized occupational therapy departments. Of the 13,097 patients treated, 4,834 were males and 8,263 were females. The predominance of females over males prevails in the occupational therapy departments of all of the state hospitals. The number treated has increased steadily. Some years ago, it was quite generally thought that such treatment was of value principally in the handling of dementia praecox patients, but at present occupational therapy is used for patients of nearly all psychotic groups with gratifying results. Several tables illustrate the findings.—*E. T. Burr* (Vocational Service for Juniors).

4472. **Proescher, F., & Arkush, A. S. Incidence of syphilis in insanity.** *Amer. J. Psychiat.*, 1930, 10, 245–253.—Study of 2236 consecutively admitted cases in Agnew (Cal.) State Hospital indicates that no direct relation exists between syphilis and insanity, outside of paresis and cerebro-spinal syphilis. —*S. J. Beck* (Boston Psychopathic Hospital).

4473. **Prout, T. P. The instinctive basis for occupational therapeutics.** *Occup. Therap & Rehab.*, 1931, 10, 235–240.—Self expression, esthetic and altruistic attitudes, and the herd instinct are involved. The melancholic lacks the self preservative tendency to do things, and therapy involves re-arousing this instinct. Having the patients come together for their work is beneficial because of the social factor.—*H. E. Burtt* (Ohio State).

4474. **Schilder, P. Principles of psychotherapy in psychoses.** *Psychiat. Quar.*, 1931, 5, 423–431.—The writer states that our knowledge of the psychotherapy of the psychoses is still in its infancy. Its possibilities are underrated because neither mass treatment nor psychoanalysis has been sufficiently utilized. In a psychosis the ego system (ego plus ego ideal) is more impaired than in a neurosis. Methods of therapy will therefore have to help the ego system. Occupational therapy, education and adaptation to reality will always be necessary. Specific methods in persuasion and hypnosis must always be used in order to get the transference by which the educational and occupational systems are employed. In psychoanalytical procedure the technique has to be different in the following points: (1) the transference has to be enforced; (2) whether the material brought forward can be digested by the ego system must be considered; (3) the ego (melancholia) or the super-ego (schizophrenia) or the whole ego system must be helped; (4) care must be taken in the breaking of the transference. Even if the patient is not psychoanalyzed, knowledge of the deeper structure of the neurosis and psychosis helps in the fuller understanding of his case.—*E. T. Burr* (Vocational Service for Juniors).

4475. **Schneider, K. Pathopsychologie im Grundriss.** (An outline of psychopathology.) Berlin-Leipzig: de Gruyter, 1931. Pp. 31. M. 2.50.—The work begins with a preamble about the methods of psychology, the body-soul problem, and the norm and illness concepts, and goes on to the pathopsychological material in the following order: (1) Kinds of experience: sensation and perception, conception and thought, feeling and value, aspiration and will. (2) Fundamental attributes of experience: consciousness of self, consciousness of time, memory, ability in reaction. (3) The background of experience: attention, consciousness, intelligence, personality. The basic idea is a phenomenological-psychological one, that is, the pathopsychological phenomena are considered as coming, above all, from experience, and are illustrated almost everywhere with evident self-descriptions. Particular emphasis is laid on the use of clear, abstract terms.—*K. Schneider* (Köln).

4476. **Schneider, K. Abnormität und Krankheit im Psychischem.** (Abnormality and disease in the mental realm.) *Monatssch. f. Krim.-psychol. u. Strafrechtsref.*, 1929, 20, 592–597.—The author considers the confusion and identification of the two concepts abnormal and diseased. "Abnormal" should be defined as a deviation from the usual, the average; it is thus a quantitative departure from the norm. On the other hand "diseased" is a notion that takes its origin in an evaluating (qualitative) norm concept. "Diseased" is specifically a medical concept. The quantitative concept of abnormality is applicable in the fields of psychology and psychopathology; it is permissible to speak of diseased mental manifestations only when these are conditioned by diseased alterations in the brain. Naturally, there exist relations between abnormal and diseased states; moreover, abnormal constitutional conditions may pass over into diseased processes. Bibliography.—*W. Beck* (Leipzig).

4477. **Schott, E. L. Variability of mental ratings in retests of neuropsychiatric cases.** *Amer. J. Psychiat.*, 1930, 10, 213–227.—Findings were inspected in 50 children and 50 adults, patients in the Neuropsychiatric Division of the Henry Ford Hospital, Detroit, tested twice or more, by the same examiner, and in almost identical circumstances, by the Stanford-Binet Scale. The average variability, regardless of direction, was 7.58 IQ points for adults; 4.68 for children. The correlation between first and second tests was .868 for adults; .956 for children; .907 for the 100 cases. A negligible correlation was found between variability and interval between tests, and no relationship between variability and IQ level. Retests are considered a barometer "indicating the upward or downward trend of mental functioning." —*S. J. Beck* (Boston Psychopathic Hospital).

4478. **Shanahan, W. T. Some phases of epilepsy.** *Med. J. & Rec.*, 1931, 134, 120–122; 166–170.—A general review of the supposed causes of this malady, with the mention of numerous medical authorities; advice regarding diagnosis, prognosis, and treatment. Warning is given against too much dependence upon glandular therapy and colony life, but the advantages of hope and confidence in both physician and patient are emphasized.—*R. C. Givler* (Tufts).

[See also abstracts 4364, 4500, 4545, 4591, 4593, 4603.]

SOCIAL FUNCTIONS OF THE INDIVIDUAL

4479. **Additon, H. The prevention of crime and delinquency.** *J. Soc. Hygiene*, 1931, 17, 200–208.—(*Soc. Sci. Abst.* III: 13154).

4480. **Alfred, J. Die Rückfallsdiebe: eine Untersuchung über Erscheinungsformen des Verbrechens.** (Recidivist thieves: research in crime.) *Krimin. Abh.*, 1929, No. 9. Pp. 94.—(*Soc. Sci. Abst.* III: 13114).

4481. **[Anon.] Zur Statistik des sozialen Aufstiegs. Die Herkunft "unserer Zeitgenossen."** (A contribution to the statistics of social ascent. The origin of "our contemporaries.") *Wirtsch. u. Stat.*, 1930, 10, 393–394.—(*Soc. Sci. Abst.* III: 13080).

4482. **Bartlett, H. H. The labors of the Datoe: an annotated list of religious, magical and medical practices of the Batak of Asahan.** *Mich. Acad. Sci., Arts & Letters*, 1929, 12, 1–74.—(*Soc. Sci. Abst.* III: 11899).

4483. **Benjamin, H. "For the sake of morality."** *Med. J. & Rec.*, 1931, 133, 380–382.—Principally an attack on the methods of the "vice squad," which is called an antiquated and an immoral institution. "The suppression of vice has resulted in fostering crime" by opening the way for prostitutes to pay for police protection. When normal sex gratification is denied, sexual neuroses and venereal diseases show an increase. Full sex education is urged as a remedy for existing conditions.—*R. C. Givler* (Tufts).

4484. **Benjamin, H. An echo of "For the sake of morality."** *Med. J. & Rec.*, 1931, 134, 118–120.—Homosexuality is not to be regarded as invariably due to the lack of opportunity to become heterosexually polarized. It is rather one of the two manifestations of a bisexual individual.—*R. C. Givler* (Tufts).

4485. **Bogardus, E. S. Balance in leadership.** *Sociol. & Soc. Res.*, 1931, 15, 344–341.—(*Soc. Sci. Abst.* III: 13079).

4486. **Brandstätter, H. Zur Frage nach dem Erfolg des heutigen Strafvollzugs.** (The results of present-day punishment.) *Bl. f. Gefängniskunde*, 1930, 61, 209–217.—Present-day methods of punishment are satisfactory only in an outward and formal sense. The quite generally introduced system of stepwise "promotion" offers a frame for the educative process, but does not of itself carry out such a process. Further researches into the personality of the criminal are needed. There is required above all a well organized educational department in every prison which has correlated with it a developed trade instruction system. In conclusion the author warns against the "leveling" of the entire penal system.—*H. Brandstätter* (Ichtershausen i. Thüringen).

4487. **Brown, S. C. Some case studies of delinquent girls described as leaders.** *Brit. J. Educ. Psychol.*, 1931, 1, 162–179.—Analysis of data regarding six delinquent girls considered as leaders results in the listing of common traits including excellent physique, high level of energy output in physical activity, interest in and enjoyment of social relationships, a general "turning out" of attention, quickness of response with good initiative and attack on tests. General intelligence does not appear to be a significant factor. Consideration of the traits of these leaders in relation to a group of followers suggests that the leaders are providing a supplement for emotional outlet lacking in the followers alone.—*K. M. Cowdery* (Stanford).

4488. **Caldwell, M. G. The economic status of families of delinquent boys in Wisconsin.** *Amer. J. Sociol.*, 1931, 37, 231–239.—This article treats of the economic conditions of the families of 492 delinquent boys who were committed to the Wisconsin Industrial School at Waukesha, Wisconsin. These conditions are analyzed in the following respects: (1) rating of parental occupations; (2) family income; (3) employment of the mother outside the home; and (4) the work contacts of the delinquent boy. Two-thirds of the occupations of the parents are unskilled occupations, according to the Barr Occupational Rating Scale. There is a slight tendency for the intelligence of children to be correlated with the occupational status of parents. Approximately 50% of the families of a selected group of Wisconsin delinquents are receiving family incomes below the health and decency standard of living level of Paul Douglas. Nearly one-fourth of the mothers work outside the home either whole or part time. Slightly over 50% of the boy delinquents are employed in economic enterprises of one sort or another before commitment. An analysis of these conditions shows that economic factors exert an important influence in the causation of juvenile delinquency.—(Courtesy *Amer. J. Sociol.*).

4489. **Calverton, V. F. A new approach to the problem of individualism.** *Soc. Forces*, 1931, 9, 343–350.—(*Soc. Sci. Abst.* III: 13032).

4490. **Carlson, H. S. Information and certainty in political opinions: a study of university students during a campaign.** *Univ. Iowa Stud.: Stud. Char.*, 1931, 4, No. 1. Pp. 48.—A rating sheet for designating one's political opinion and the certainty with which it was estimated to be held, and an information test covering the principal facts relevant to the opinion, were given to 357 university students just prior to the presidential election in 1928. A very low correlation was found between total certainty and total information. The factors which appeared to affect the relationship between certainty and information were party bias, sex, intelligence and academic advancement. It is "evident from this study that the relationship between information and certainty is not very great and that the art of exact and balanced judgment in political matters is not nearly so universal as the democratic theory of government presupposes."—*B. Wellman* (Iowa).

4491. **Castagné, J. Magie et exorcisme chez les Kazak-Kirghiz et autres peuples turcs orientaux.** (Magic and exorcism among the Kazak-Kirghiz and other oriental Turkish peoples.) *Rev. des études islamiques*, 1930, 1, 53–155.—(*Soc. Sci. Abst.* III: 11900).

4492. **Cook, P. A. W. Tribal education.** *S. African J. Sci.*, 1929, 26, 937–944.—(*Soc. Sci. Abst.* III: 11892).

4493. **De Croisset, F. La famille nouvelle.** (The new family.) *Rev. hebdom.*, 1931, 40, 13–37.—(*Soc. Sci. Abst.* III: 13036).

4494. **Deggau, A. Pädagogische Fragen und Vorfragen zum erziehlichen Strafvollzug.** (Pedagogical questions and preliminary questions concerning an educative penal system.) *Bl. f. Gefängniskunde*, 1930, 61, 217–224.—The author considers first the prison school. He sees in it a means of education of the first rank; this school is not intended to be a place merely for dispensing knowledge, but aims to be a section for the social-pedagogical education and treatment of the prisoner. The age-limit rule which restricts attendance at the school to thirty years should be abolished. Prison education should be carried out according to the methods utilized in the Danish high schools.—*H. Brandstätter* (Ichtershausen i. Thüringen).

4495. **Du Picq, A. Etude comparative sur la divination en Afrique et à Madagascar.** (Comparative study on divination in Africa and Madagascar.) *Bull. comité d'etudes hist.*, 1930, 13, 9–25.—(*Soc. Sci. Abst.* III: 11891).

4496. **Estabrooks, G. H. Which races are best? Why science cannot admit racial differences in intelligence.** *Sci. Amer.*, 1931, 144, 311–313.—(*Soc. Sci. Abst.* III: 13024).

4497. **Eurich, A. C., & Carroll, H. A. Group differences in art judgment.** *School & Soc.*, 1931, 34, 204–206.—As a result of comparing the scores on the Meier-Seashore Art Judgment Test of over 600 students majoring in various academic subjects at the University of Minnesota, the authors conclude that the art majors rate higher than do the others and that the women consistently excel the men.—*H. L. Koch* (Chicago).

4498. **Eysten, J. W. Das Progressivverfahren in Holland.** (The progressive system in Holland.) *Monatssch. f. Krim.-psychol. u. Strafrechtsref.*, 1931, 22, 310–319.—A report of the attempts to apply the progressive system to the betterment and reclassification of criminals. The author sees in this system not only a disciplinary scheme in furtherance of the education of the criminal, but also an immediately applicable instrument of education itself. Bibliography appended.—*W. Beck* (Leipzig).

4499. **Fettweiss, E. Parallelerscheinungen auf mathematischem Gebiet bei jetzt lebenden Naturvölkern und bei Kulturvölkern vergangener Zeiten.** (Parallel facts in the field of mathematics among present primitive peoples and among civilized peoples of past times.) *Scientia*, 1931, 49, 423–436.—An accumulation of comparisons involving the use of certain members in games and folkways and to indicate non-mathematical facts, such as sex, etc.; geometrical concepts; and systems of enumeration.—*R. G. Sherwood* (Redmond, Washington).

4500. **Flesch, M. Sind Psychopathen zurechnungsfähig?** (Are psychopaths accountable?) *Monatssch. f. Krim.-psychol. u. Strafrechtsref.*, 1929, 20, 732–734.—The author develops the problem, growing out of a murder case, with respect to responsibility. A psychopathic individual may, upon the commission of the murder, show evidences of reflection, and thus *appear* to be accountable for his acts. However, in such a person the inhibitions of the normal man have long since given way before powerful impulses. The author demands for the physician the right "so to build up his expert opinion concerning the diminished responsibility of the mentally deficient and of psychopaths that this opinion will come to have a decisive value for the purposes of judicial proceedings."—*W. Beck* (Leipzig).

4501. **French, N. R., Carter, C. W., Jr., & Koenig, W., Jr. The words and sounds of telephone conversations.** *Bell System Tech. J.*, 1930, 9, 290–324.—500 conversations were observed for nouns, 500 for verbs, and 500 for adjectives and adverbs; the minor parts of speech were represented by about 150 conversations each. 89% of the calls were business calls, and 86% and 10% between two men and two women respectively. Of about 80,000 words obtained, 2240 were different, of which 1029 were nouns, 634 adjectives and adverbs, and 456 verbs. The 737 words appearing more than 4 times are listed in order of frequency and alphabetically, with notations of the number of conversations in which they occurred. The material is compared with Dewey's results for written English; the conversation has fewer different words, more polysyllables, and more words of Latin derivation. The vowels of *pin, pine, pan, pen, peel, pool, pot* account for half of all vowels; *w, t,* sonant *th, y, d, m, h, k,* for half of all initial consonants; and *t, r, n, l, s* for half of all final consonants. The distribution of sounds in conversation is close to that in written English, with the major differences due to a few words characteristic of speech. There is little difference due to changing the list in various ways.—*R. R. Willoughby* (Clark).

4502. **Frey, C. La conception du mal chez les païens Bamoums.** (The conception of evil among the pagan Bamoums.) *Arch. de psychol.*, 1930, 22, 352–359.—The idea of evil is well known among the pagan Bamoums. It is for them a power of which the natural elements are the servants, but which uses also certain human beings who do injury to other members of the tribe, often unconsciously, always involuntarily. To prevent evil and to protect themselves against it the pagans have recourse to magic means. But even with the aid of these, the pagan can still commit evil if he is possessed by it, notably if he has given it a "bridge" through not observing the law of the clan. The result is that the pagan has no sense of personal responsibility. He does not say "I have sinned" but "Evil has seized me" or "Evil has entered into me." The individual who is thus the plaything of the power of evil comes to evangelism driven by the desire to be delivered from this evil power which dominates him. He rejects his magic safeguards, and finds in Jesus Christ a being more powerful than all the evil beings whom Satan soon comes to personify. The Christian who has come from paganism acquires, then, little by little, the feeling of his culpability and the need for pardon which Christ gives those who live in him.—*M. R. Lambercier* (Geneva).

4503. **Fribourg-Blanc, —, & Scouras, —. La réaction suicide chez les débiles et les déséquilibrés dans l'armée.** (The suicide reaction among the

feeble and unbalanced in the army.) *Ann. méd.-psychol.*, 1931, 89, 531.—Those feeble and unbalanced who fail to make adjustments to army life and often attempt suicide without really wanting to die should be discharged, at least in peace times.—*M. B. Mitchell* (George School, Pa.).

4504. **Fuchs, G. Wir Zuchthäusler. Erinnerungen des Zellengefangenen Nr. 2911.** (We convicts. Recollections of prisoner number 2911.) Munich: Langen, 1931. Pp. 312. M. 6.50.—After the revolution, because of participation in the political agitation, Fuchs was condemned to twelve years' imprisonment, five of which he had served up to the time of his pardon. Commendatory remarks by famous persons are added to the book. It gives a description of the solitary convict type and seeks a solution for the prison problem; whereupon the question arises whether it is possible to join general security with improvement for the individual. The situation has not become better in the present-day so-called humanitarian-ideal management of the execution of sentence, because the personality becomes dissociated. Fuchs rejects every sentimentality and demands, above all, regard for the possibility of change in the personality.—*G. Fuchs* (Munich).

4505. **Gamio, M. Comentarios sobre la investigación sociológica de los delincuentes.** (Comments on the sociological study of delinquents.) *Rev. Mexicana de derecho penal*, 1930, 1, 49–60.—(*Soc. Sci. Abst.* III: 13099).

4506. **Gee, W., & Runk, D. Qualitative selection in cityward migration.** *Amer. J. Sociol.*, 1931, 37, 254–265.—Study of rural-city migration in a sample in Albemarle County, Virginia, representing three social classes—upper, middle and lower—shows that the upper group sustained decidedly the largest proportionate loss to the cities, the middle group the next heaviest, and the lower group the least. The educational training of the possible migrants among the upper group is strikingly higher than that of the middle and lower groups, which also show a marked difference in this respect. Similarly, those from the upper group, and to a less extent in the middle group, enter mainly the business, professional and clerical occupations, while the migrants from the lower groups concentrate in occupations calling for unskilled, semi-skilled and skilled labor. The attitudes of parents in the three groups with regard to their sons' following farming in considerable measure parallel the direction of preponderant migration in the particular group.—(Courtesy *Amer. J. Sociol.*).

4507. **Gennet, —. Der Kürtenprozess.** (The trial of Kürten.) *Krim. Monatsh.*, 1931, 5, 130–133.—Continues the account of the sexual criminal Kürten of Düsseldorf. The answer to the question whether this man could have been apprehended earlier seems to be most emphatically in the negative. Kürten finally confessed his crimes to his wife, who informed the police. Even Kürten got to the point where he could not keep his secrets and had to find someone to confide them to; he went to pieces all at once, without warning.—*P. C. Squires* (Clinton, N. Y.).

4508. **Grebert, M. F. L'art musical chez les Fang du Gabon.** (Musical art of the Fang of Gabun.) *Arch. suisses d'anthrop. gén.*, 1928–29, 5, 75–86.—(*Soc. Sci. Abst.* III: 11893).

4509. **Gurewitsch, Z. A., & Woroschbit, A. J. Das Sexualleben der Bäuerin in Russland.** (Sex life of the peasant woman in Russia.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 18, 51–74.—In the summer of 1929 the authors asked physicians throughout the Ukraine to collect data regarding the sex life of their patients (see III: 3120). This article reports the results of that study. Data were received on 1816 peasant women from 15 years to "past 40" years of age, 90% being between 20 and 40. 88% were Ukrainians, the rest being Russian, Jewish, and a few scattered races. Less than 4% are described as being "well-to-do"; the rest are in moderate circumstances, 42%; or poor, 54%. 83.5% of those reported are married, 10% are widowed or separated, and 6.5% are single. More than half the group can read and write, and 8.8% interest themselves in the public and political life of their environment. The average age of first menstruation was 15.34 years; the Ukrainian women averaging 15.41, the Russians 15.05, and the Jewish 14.71. Peasant women begin menstruation definitely later than women in higher social groups. The author explains this on economic grounds: work done in childhood, living conditions, food, and the recent privations of the war period. 26.4% of the cases had their first sex experiences prior to the age of 17; 65.5% by the age of 19. The average age of beginning sex life is 19.02 years; Jewish women have an average of 22 years. 23.2% of those reporting had sex experiences previous to marriage. The younger women reported more pre-marital experiences, up to 37% of the 20–24-year-old group. It is to be concluded that the modern peasant woman has broader views than those of her sisters before the war. Many parts of Russia, including the Ukraine, preserve the ancient custom of trial marriage. Chastity may be of no value to a girl; in some districts it is easier for a girl to marry after she has borne a child. Of the 1783 women in this study who answered the question, 40% had taken part in the *Doswidski*, nocturnal gatherings at which young couples remain over night and engage in intercourse. These were described in the 1890's, but apparently now are falling into disuse. These *Doswidski* are criticized because boys and girls of 13 or 14 years are allowed to take part; they spread venereal disease; they frequently give work to unqualified and brutal abortionists. The tendency of the progressive and revolutionary young men is to condemn this custom. In its place, social groups are encouraged where the young people can spend the evening in work, reading, and educational activities.—*H. Marshall* (Stanford).

4510. **Hacker, E. Internationale Kriminalstatistik.** (International criminal statistics.) *Monatssch. f. Krim.-psychol. u. Strafrechtsref.*, 1931, 22, 269–279.—This study aims to reduce to a comparative basis, in terms of a norm of 100,000 individuals of punishable age, criminal quantitative data in particular jurisdictions. Countries studied are: Belgium, Bulgaria, Denmark, Germany, England and

Wales, Finland, France, Italy, Canada, Netherlands, Norway, Austria, Scotland, Sweden, Switzerland, Czechoslovakia, Hungary, United States of America. There are considered the problems of criminality according to sex, family status, educational level, and recidivism. References.—*W. Beck* (Leipzig).

4511. **Harper, F. V., & Reinhardt, J. M. Juvenile delinquency. A study of environmental factors in the city of Grand Forks, North Dakota.** *Univ. North Dakota Quar.*, 1930, 21, 26–32.—(*Soc. Sci. Abst.* III: 13116).

4512. **Henning, —. Die Ernährung der Gefangenen.** (The feeding of prisoners). *Bl. f. Gefängniskunde*, 1930, 61, 237–247.—The correct feeding of prisoners is a matter of the greatest importance. Crowded quarters, the lack of sun, air, exercise, the sudden separation from the other sex, from tobacco and alcohol, the recent ordeal of the trial, the feelings of guilt and homesickness: all these are factors endangering mental and physical balance. It is, however, possible to diminish these dangers by means of a proper diet. Food must be sufficient, wholesome, good tasting, and in variety. Food must not be strongly seasoned; it should not be cooked too long or served too hot. Bread should be thoroughly baked out of whole corn meal and should not be given out until 48 hours after baking. The greatest cleanliness should be observed in the preparation of food. Moreover, the greatest care must be taken that the food is eaten slowly when quite cool. —*H. Brandstätter* (Ichtershausen i. Thüringen).

4513. **Herzog, F. Musical styles in North America.** *Proc. 23rd. Int. Cong. Amer. New York, Sept. 17–22, 1928*, 1930, 455–458.—(*Soc. Sci. Abst.* III: 11971).

4514. **Holler, E. Ein jugendlicher Mördertyp.** (A youthful type of murderer.) *Bl. f. Gefängniskunde*, 1930, 61, 60–76.—An account of three youthful murderers with whom the author came into contact through his social-pedagogic activities in the prison at Untermassfeld, and who came to his attention on account of their similarity to each other. They came from well ordered homes and no inherited disabilities are evident in their cases; they murdered their brides, who had pretended they were pregnant; they carried out the murders in the same manner; the same motive was present in each case, namely, the incapacity on the part of the youth to care for an increased family; after the verdict they had comprehension of the justness of the punishment, but no actual repentance; they adapted themselves well to prison life; and it became evident in prison that they had not yet gone beyond the stage of puberty, that they were easily influenced by others, and were shy and sensitive. There were also decided similarities in respect to their body build. The author is convinced that he has run across a special type, as represented by these cases. A comparison of these three cases with the other murderers in the same prison show striking differences. Holler speculates upon the conformity of all youthful murderers in Germany to the type represented by these three.—*H. Brandstätter* (Ichtershausen i. Thüringen).

4515. **Hough, W. Material culture and the racial matrix.** *Scient. Mo.*, 1931, 33, 164–167.—Museum materials from all parts of the world bear recognizable evidences of the races that have produced them, particularly in pottery, lacquer, drawings, etc.—*J. F. Dashiell* (North Carolina).

4516. **Hyde, G. M. Public opinion and the press.** *Journalism Quar.*, 1931, 8, 73–83.—(*Soc. Sci. Abst.* III: 13075).

4517. **Jellinek, A. [Ed.] Bericht über die IV. Kongress der internationalen Gesellschaft für Logopädie und Phoniatrie (Sprach- und Stimmheilkunde), Prag, 8–10 Sept. 1930.** (Report of the 4th Congress of the International Society for Logopedia and Phoniatry (speech and voice cure), Prag, 8–10 Sept. 1930.) Wien: Deuticke, 1931. Pp. x + 122. M. 16.00.—*R. R. Willoughby* (Clark).

4518. **Karsten, R. Die Seelenvorstellung der Naturvölker.** (Soul conceptions among primitive people.) *Zsch. f. Völkerpsychol. u. Soziol.*, 1931, 7, 168–181.—The author criticizes sharply Levy-Bruhl's conception of primitive mentality, especially his notion that primitive man has no notion of soul or mind. Karsten asserts that Levy-Bruhl's work is not based upon a first-hand knowledge of primitives, that he proceeds from theories to proof from the literature, that he generalizes concerning primitive thinking as though primitives were all alike, and that he does not make use of the best authorities.—*J. R. Kantor* (Indiana).

4519. **Kempner, R. Das "Sittlichkeitsvergehen" des Schumachers Gramm. Erst 1½ Jahre Gefängnis—jetzt Freispruch und 20,000 RM Entschädigung.** (The "moral delinquency" of the shoemaker Gramm; first 1½ years' imprisonment—now exoneration and 20,000 RM indemnity.) *Krim. Monatsh.*, 1931, 5, 121–125.—A striking case illustrating the great danger often presented in evaluating the testimony of child witnesses. The defendant, now exonerated, was convicted of rape on the testimony of little girls. Medical experts finally conclusively proved that Gramm could not have been guilty of the crime for which he was wrongfully convicted. The medical evidence produced during the course of this case forcefully brings into the open the many difficulties confronting the proper interpretation of such evidence.—*P. C. Squires* (Clinton, N. Y.).

4520. **Kirk, W. Cultural conflict in Mexican life.** *Sociol. & Soc. Res.*, 1931, 15, 352–364.—(*Soc. Sci. Abst.* III: 13088).

4521. **Klineberg, O. Culture and personality.** *Survey*, 1931, 66, 44–45; 67; 70.—(*Soc. Sci. Abst.* III: 13066).

4522. **Kolle, K. Polizeistatistik der Sittlichkeitsvergehen.** (Police statistics on indecent assault.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 17, 457–463.—The incidence of cases of sexual assault in Kiel has increased gradually from 0.2% in 1879 to about 1.6% of the population in 1929, with a drop back nearly to 0.2% during the years of the war. More than 70% of those arrested for sex

crimes are classed as skilled or unskilled laborers.—*H. Marshall* (Stanford).

4523. **Kroeber-Keneth, L. Die schriftkritische Beurteilung von Bewerbungsschreiben.** (The critical judgment of applicants' handwriting.) *Indus. Psychotechn.*, 1930, 7, 65–72.—The author advocates as a minimal program the judging of handwriting speed, legibility, simplicity of form, regularity, size of letters, pressure, arrangement on page, character of signature. The significance of each point is set forth.—*A. W. Kornhauser* (Chicago).

4524. **Larned, R. The tangled threads of migrant family problems.** *Proc. Nat. Conf. Soc. Work*, Boston, Mass., June 8–14, 1930; 469–477.—(*Soc. Sci. Abst.* III: 13037).

4525. **Levy-Valensi, —. Les crimes passionnels. L'homicide passionnel.** (Passionate crimes. Passionate homicides.) *Ann. méd.-psychol.*, 1931, 89, 528–531.—Two kinds of passionate crimes were described: purely passionate crimes and passionately insane crimes. Those committing purely passionate crimes should be imprisoned, while the others should be committed to hospitals for mental diseases.—*M. B. Mitchell* (George School, Pa.).

4526. **Lewis, B. R. Creative poetry.** Stanford University, Calif.: Stanford Univ. Press, 1931. Pp. xi + 399. $5.00.—Postulating the fallacy of the layman's ideas of so-called "poetic madness" or divine inspiration, the author bases his concept of poetry on the psychologist's theory of emotion as a mental state engendered by the lack of coordination between sensory impression and muscular activity. Man, unable to consummate his outgoing motor expression, finds in the resultant neural frustration the matrix of his art. The poet, highly emotional by nature, is capable of losing all feeling of self, of reaching up mentally into the farthest realm of intense emotion, thus bringing about the state which is known as the "exalting esthetic mood." Establishing poetry, then, as the esthetic by-product of emotion, which is itself the status quo of the neural centers brought about by continuous mental inhibitions, Lewis particularizes on theme, pattern, verbal expression and its general purpose. The poet, subject as he is to social control and possessed of a natural instinct to communicate, refines the emotion of his poetry into acceptable form. The author's theory of organic rhythm arises from the simple physiological principle of supply and exhaustion. The poet is incapable of sustaining the exalted mood for an indefinite period and the sweeping grandeur of a single sustained mood is governed by organic law. Beneath this there function minor rhythms. The rhythmic repetition in our poetry today is traced to primitive man's propensity for repetitious parallelism resulting from his inability to express emotion by more than a series of like sounds. The poet, expressing himself in terms of existing limitations, places a control upon the impulse which is his emotion by drawing a definite pattern which is itself organic, arising as it does from the physiological law of supply and exhaustion.—*K. Ahern* (Newton, Mass.).

4527. **Loewenthal, J. Jüdische und unjüdische Mischungen.** (Jewish and non-Jewish racial mixtures.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 18, 23–29.—Auerbach has been widely quoted to the effect that up to the beginning of the 19th century the Jews had held themselves racially apart. Among both sympathizers and opponents of the Jews this assumption has been subject to a variety of interpretations. If one accepts the racial integrity per se, it would require acceptance of the doctrine of acquired characters to explain the existence of such varied types as the Jews of Italy, Spain, North Germany, South Germany, Finland, the Ukraine, etc. Actually there have been at least five great racial mixtures: (1) Egyptian, at the time of Moses, producing the Oriental type of Jew; (2) intermixture with the Turks, Assyrians, Babylonians, etc., producing the Taurie type; (3) Italian, at the time of early settlements during missionary expeditions, producing the Alpine type; (4) invasion of Spain and Portugal during the 15th and 16th centuries; and (5) Germanic admixtures.—*H. Marshall* (Stanford).

4528. **Lowie, R. H. The inventiveness of the American Indian.** *Amer. Mercury*, 1931, 24, 90–93.—A defense of the view that Indian culture was a natural development, arising from the Indian's own inventiveness, and not something imported through contacts with other ancient cultures.—*J. T. Metcalf* (Vermont).

4529. **Mainwaring, J. Experiments on the analysis of cognitive processes involved in musical ability and in musical education.** *Brit. J. Educ. Psychol.*, 1931, 1, 180–203.—Series of musical tests given to elementary school children gave results leading to the conclusion that musical ability necessarily includes a complex group of cognitive processes with little tendency to positive intercorrelation. Education of pitch differences correlates highly, rhythmic perception positively but less highly with *g*; their intercorrelations are low. Age is an important factor in the development of both abilities. The ability to recall musical experiences exists at early ages and develops rapidly during adolescence, but has little correlation with *g*. The fact of reaction to training is evident, but its possible extent is not yet determined. Excerpts and descriptions of tests are given in an appendix.—*K. M. Cowdery* (Stanford).

4530. **Maller, J. B. Studies in the intelligence of young Jews.** *Jewish Educ.*, 1931, 3, 29–39.—(*Soc. Sci. Abst.* III: 13025).

4531. **Marcuse, M. Ueber die Glaubwürdigkeit sexueller Beschuldigungen durch Kinder und Jugendliche.** (On the credibility of charges of sexual misdemeanors brought by children and adolescents.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 17, 463–486.—Children and adolescents know little or nothing of sexual matters, but surmise a great deal. Experience or new information arouses a sense of shame. On the other hand they may be on the alert for sex knowledge, to the extent that they may see a sexual significance where none exists. The author cites accusations which have apparently arisen as

wish-fulfilments. Questions may suggest their answers or lead to fantasy. Lying is more frequent among adolescents than in earlier ages, and the tendency to lie about sex matters is especially strong at this period. These lies can frequently be recognized by changes in expression, etc., on the part of the child, unless he is an habitual liar. Glandular disturbances, physical defects, etc., need to be taken into consideration as well. The author quotes a case in which six girls accused a man teacher of handling them suggestively, more than four years previously. He discredits the evidence of each of the six witnesses, and suggests that the children began to fantasy because of other sex irregularities known to them in their village. He points out that the accused was a man whose sex life had been established on an adult basis, and that such infantile practices would not be characteristic of him. The author believes that all cases of such charges should have medico-psychological investigation of the complaining witness.—*H. Marshall* (Stanford).

4532. **Martens, K. Psychopathie und strafrechtliche Bedeutung unzüchtiger Abbildungen.** (Psychopathy and the criminal significance of lascivious illustrations.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 18, 17–23.—The rating of printing, photographs, and sculpture as "artistic" or "suggestive" is determined largely by subjective factors. The police of Dresden have a collection of confiscated material which includes a great mass of proscribed photographs, utensils, drawings, etc. The individuals who make use of such articles to arouse sex feelings are definitely psychopathic, in the same class with fetishists, voyeurs, or onanists. The author summarizes German law on the subject of such offenses against public morals.—*H. Marshall* (Stanford).

4533. **Mathews, S. Social patterns and the idea of God.** *J. Relig.*, 1931, 11, 159–178.—(*Soc. Sci. Abst.* III: 13093).

4534. **Lumpkin, K. D. Factors in the commitment of correctional school girls in Wisconsin.** *Amer. J. Sociol.*, 1931, 37, 222–230.—Of the social influences acting as factors in the commitment of 252 girl delinquents to the correctional school, previous court record seems not to be particularly important. Sex delinquency was the most frequent offense, although running away, truancy, and stealing occurred in many cases. A few were designated as really dependent and neglected. Over 83.4% of the cases had "bad companions." Nearly two-thirds of the girls came from "broken" homes. Socially defective tendencies (traits of health, habit, personality, etc.) complicated the situation in 82.5% of these broken homes as compared with 61.9% of unbroken, and the 82.5% had two-thirds of all such traits. Of this sample, 95% came of the class least advantaged in income and opportunity, and about two-thirds of these particular homes had been given community assistance. When they were major the offenses themselves loomed larger than any other factor, but when minor, home influences assumed considerable significance.—(Courtesy *Amer. J. Sociol.*).

4535. **Pertold, O. The conception of the soul in the Sinyalese demon worship.** *Arch. orientální*, 1929, 1, 316–322.—(*Soc. Sci. Abst.* III: 11905).

4536. **Pound, R. Public opinion and social control.** *Proc. Nat. Conf. Soc. Work*, Boston, Mass., June 8–14, 1930; 607–623.—(*Soc. Sci. Abst.* III: 13076).

4537. **Quiroga, R. S. La familia antisocial y la delincuencia juvenil.** (The anti-social family and juvenile delinquency.) *Rev. mexicana de derecho penal*, 1930, 1, 61–70.—(*Soc. Sci. Abst.* III: 13119).

4538. **Reik, T. Ritual.** (Trans. by D. Bryan.) New York: Norton, undated. Pp. 367. $5.00.—Four essays, preceded by an introduction and a preface by Freud. The first, *Couvade and the Psychogenesis of the Fear of Retaliation* (*Imago*, 1914) ascribes the couvade practices to the motive of expiation for the father's previous hostile wishes toward his own father, in order to avert retaliation from his son. The second, *The Puberty Rites of Savages* (*Imago*, 1915–16), deals particularly with the elaborate rites of the Australians, and explains them as the dramatic working out of the father-son hostility, fear, and tenderness. The third, *Kol Nidre*, and the fourth, *The Shofar*, are lectures read before the Vienna Psychoanalytical Society in 1918–19, and probably not previously published. *Kol Nidre* explains the Jewish prayer of the same name (apparently invalidating future oaths) as reminiscent of the blood oath sworn by the Freudian band of brothers; and *The Shofar* derives a similar meaning for the ceremonial blowing of the ram's horn in the Jewish service, which is at once the voice of God and a defiance of the father charged with anxiety and its release; both are examples of the return of the repressed in the repressive act.—*R. R. Willoughby* (Clark).

4539. **Reiter, H. Grundsätzliche Bemerkungen zum gegenwärtigen Stande der Kriminalbiologie.** (Fundamental observations concerning the present-day position of criminal biology.) *Monatssch. f. Krim.-psychol. u. Strafrechtsref.*, 1931, 22, 78–84.—Criminal biology is throughout its entire range in process of evolution; before it can talk of "results" which possess crimino-political and therapeutic value there is necessary a vast amount of synthetic work from both the biological and the juristic points of view. Criminal biology is merely a part of the larger discipline of the biology of inheritance; "its work does not properly start with the study of the adult criminal, but with the normal child." "No one becomes a criminal who always reacts, according to his biological predisposition, to environmental influences in a conventional manner. The criminal is a phenomenon of a natural order, bound down to an anatomical substrate which carries along with it unique physiological reaction-forms."—*W. Rick* (Leipzig).

4540. **Richards, T. W. A case of reading disability due to deficient visual imagery.** *Psychol. Clin.*, 1931, 20, 120–124.—The boy had an IQ of 113 and his school work was satisfactory in every way except in reading and spelling. Special teaching, in which auditory and kinesthetic imagery were espe-

cially appealed to, brought him up to the level of his school grade in reading, though he still had difficulty in spelling.—*J. T. Metcalf* (Vermont).

4541. **Riffel, P. Fürsorge für geschlechtskranke Gefangene.** (The care of sexually diseased prisoners.) *Bl. f. Gefängniskunde*, 1930, 61, 48–59.—This discussion takes its point of departure from the fact that sexual diseases spread among prisoners. However, there are no thoroughly credible and generally valid data yet available. The diseased must be treated in an intensive manner. The inspection personnel of the prisons must be educated along these lines in order that it may be of definite assistance to the physician.—*H. Brandstätter* (Ichtershausen i. Thüringen).

4542. **Schöppe, Ch. Biologisches und Psychologisches zum Frauensport.** (Biological and psychological considerations on woman's athletics.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 17, 503–518.—The author studied the habits of exercise of 502 young women, with reference especially to their practice during menstruation.—*H. Marshall* (Stanford).

4543. **Schwarz, O. Über Homosexualität.** (Concerning homosexuality.) Leipzig: Thieme, 1931. Pp. 122. M. 8.00.—The book has for its problem the presentation of the structure of homosexuality from its components: bodily foundation, phenomenological description of the condition, the kind of experiences the homosexual goes through, and finally the sensuousness of the whole life. In respect to the first point, bodily hermaphroditism is rejected as the foundation of homosexuality, and it is shown that hermaphrodites are not also homosexuals. Furthermore, homosexuality cannot be explained as a pathological intensification of so-called bisexuality, since at bottom these two phenomena display entirely different forms of behavior (the analogy is similar to the connection between schizothymia and schizophrenia). On the contrary, homosexuality is something fundamentally new, a specific variety of a person's sex core. The attribute which distinguishes the behavior of a homosexual to his partner from that of the heterosexual person is barrenness, and that not only in the sense of impregnation, but also on every principle. For the relation of a homosexual to his partner is really not that of partnership, but is only a vain attempt to attain it. From that, all the characteristic impulses of the homosexual, such as exaggeration, the cult of beauty and similar things, can be explained, but so also can the peculiar rudimentary sex relation, which for the most part must remain in the preliminary stage. But after all, the main characteristic of homosexuals is the abnormal choice of partner and therefore the motive of these people. Concerning this it must be said that the body of the partner does not mean the same to homosexuals as it does to normal people; the homosexual lives in another (fictitious) love reality, somewhat like the fetishist. In truth it is not at all the body which is essentially desired, but what the body symbolizes: the desire of the homosexual man to find blended in his young partner tenderness and watchfulness, the masculine body being thrown into the bargain; the body of the partner is desired just as the shoe is desired by the fetishist. Pure phenomenology brings us thus far in regard to structural analysis. The actual realization of this schema gives the hope of a neurosis theory (Freud, Adler), and consequently hopes of a psychology of the homosexual in place of a structure for homosexuality. The premise of this theory is that homosexuality is a neurotic symptom similar to all other symptoms, and that through a typically neurotic conflict (Oedipus, inferiority, etc.), the patient is driven on to the development of homosexuality. On the other hand, there are two objections: the first is that the assumption is in no way demonstrated, and the second that it is not yet clear why a neurotic person produces homosexuality and not simple impotence or stomach neurosis. On the contrary we must take for granted that, on the foundation of a still not known and perhaps not even specific constitutional anomaly, the sexual development of an individual is arrested (partial infantilism) so that a sexuality with all the signs of immaturity ensues: an entirely specific radical gives this subordinate immaturity the special homosexual coloring. Seen from the pure structural-constitutional standpoint, the investigation of homosexuality offers the very same difficulties as does schizophrenia. The appendix of the book gives a comprehensive review of the literature.—*O. Schwarz.*

4544. **Selling, L. S. The pseudo-family.** *Amer. J. Sociol.*, 1931, 37, 247–253.—Group family relationships among girls in correctional institutions seem to grow up as a natural substitute for the family group which the institution mechanism cannot supply. These relationships constitute a complete family outline. They rest on a natural psychological and physiological basis. In addition to the more permanent, stable families, which are woven through all the cottages, are secondary families in single cottages which exist only for short periods. When considered in the light of other types of relationships among girls—individual homosexuality (Lesbianism and pseudo-homosexuality) and friendship—the pseudo-family relationship is seen to be a non-pathological example of relationship between the sexes.—(Courtesy *Amer. J. Sociol.*).

4545. **Stertz, G. Encephalitische Wesensveränderungen und Mord: Gutachten über die Zurechnungsfähigkeit.** (Encephalitic transformations of character and murder: observations on responsibility.) *Monatssch. f. Krim.-psychol. u. Strafrechtsref.*, 1931, 22, 320–332.—The author presents the case of a 29-year-old man who murdered his 5-year-old foster child in a sadistic manner. The premorbid personality of this man was orderly, active and sympathetic. In relation to the pre-encephalitic condition, the act in question was entirely alien. At the age of 19 this man fell victim to a brain attack which resulted in a distortion of his further development; structural alterations in the brain carried along with them severe neurasthenic and mental effects. "However, there clung to him the remnants of his earlier normal personality to such an extent that he was able to get through average

situations successfully and to avoid delinquencies." But the time came when he was subjected to unusual conditions of life; it was then that the criminal act was perpetrated. The author considers the patient completely irresponsible. It must not be inferred upon the basis of this case, however, that there is an absence of responsibility in every instance of brain disease. Bibliography appended.—*W. Beck* (Leipzig).

4546. **Stoltenberg, H. L. "Sozialpathologie." Eine geschichtliche und begriffliche Untersuchung.** (Social pathology. An historical and conceptual study.) *Jahrb. f. Nationalök. u. Stat.*, 1929, 130, 838–845.—(*Soc. Sci. Abst.* III: 13110).

4547. **Theilhaber, F. A. Ein deutscher Malthus.** (A German Malthus.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 18, 45–50.—K. A. Weinhold, 1782–1829, a Prussian statesman and physician, published a group of articles on the subjects made popular by Malthus. An article published in 1827 was entitled *The Overpopulation in Central Europe, and its Effect on the Countries and their Civilization*. Another, in 1828, was called *Population and Industry, or Critical Evidence that the Population in Highly Civilized Countries is Exceeding the Growth of Industry*. A third appeared in 1829, entitled *Equalization of Population as a Foundation for the Well-Being of Society and the Family*.—*H. Marshall* (Stanford).

4548. **Traumann, F. E. Das Rundschreiben des Papstes Pius XI über die christliche Ehe und die Sexualreform.** (The encyclical of Pope Pius XI on Christian marriage and sexual reform.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1931, 18, 37–45.—Later generations will finally evaluate the political and cultural effect of this encyclical, which is a statement of the position of the Catholic church on the subject of marital relationships. According to it, marriage is of heavenly origin, and its changeless nature is guarded and hallowed by the sacraments of the Church. For that reason, of course, companionate marriage, trial marriage, and the like cannot even qualify for discussion. Present insidious progress toward the weakening of the marriage bond is condemned on account of the supernatural nature of marriage.—*H. Marshall* (Stanford).

4549. **Turner, J. E. Freud and the illusion of religion.** *J. Relig.*, 1931, 11, 212–221.—(*Soc. Sci. Abst.* III: 13095).

4550. **Von Reitzenstein, F. Das Weib bei den Naturvölkern.** (Woman among primitive peoples.) Berlin: Neufeld & Henius, 1931. Pp. 400. M. 6.00.—This work of the deceased von Reitzenstein, which was out of print for many years, appears now in a new, cheap edition, unabridged and with all the illustrations of the large edition. A study of woman in respect to anthropology and physiology introduces the work. In these studies, material culture, care of the body, plastic art, ornaments and clothing are discussed. A chapter on the relation of the woman to her husband and children, her position in public and in the community, marriage, the woman as mother, and the education of children concludes the book. Particularly exhaustively treated is the home life among primitive peoples; the woman first of all as the slave, then as the co-worker of man, the material and spiritual culture, the religious trends and the position of woman in different religions, the superstitions in connection with woman, the place of woman in literature and poetry, art and custom.—*W. Wirth* (Leipzig).

4551. **Wartenburg, —. Ein rätselhafter Fall geständiger Brandstiftung.** (A puzzling case of confessed arson.) *Krim. Monatsh.*, 1931, 5, 159–161.—This case is interesting because it involves as a possible ground for the psychological disturbance malarial infection. The most careful examination failed to disclose a comprehensible motive for the act of arson. The young man on trial for arson had been the victim of a malaria attack eight days before the occurrence of the crime; this attack was the third in three and a half years. He had once been in the French Foreign Legion and had been up for court martial, but was discharged because of irresponsibility.—*P. C. Squires* (Clinton, N. Y.).

4552. **Wilson, D. J. Modern psychology and the minister.** *Canada J. Relig. Thought*, 1931, 8, 52–64.—(*Soc. Sci. Abst.* III: 13098).

4553. **Wolbarst, A. L. Sexual perversions: their medical and social implication.** *Med. J. & Rec.*, 1931, 134, 5–9; 62–65.—Even the normal sex contact varies as to "form of expression and degree of intensity with each individual." Perhaps the chief mark of the abnormal in sex relations is the absence of love emotions. Slight perversions are often a "normal constituent in the lives of normal individuals" (Bloch, Freud). Ellis is quoted in regard to the admixture of perversions with heterosexual contacts, and some distinction is made between what may be physiologically effective but unesthetic at the same time. The increase of perversions as practised by vice-squad-hounded prostitutes is given special mention. As a prophylaxis against pederasty, Russian prisoners are allowed leaves of absence for sexual reasons. Many inverts have been famous for their intellectual attainments. In any evaluation, one should distinguish between "the so-called normal individual casually practising sexual variations, and the psychopathic individual in whom the aberration is an outward manifestation of mental pathology." The real question is "What effect does a perversion have upon the pervert?" Such a question is primarily scientific and factual, rather than moral.—*R. C. Givler* (Tufts).

[See also abstracts 4358, 4423, 4433, 4467, 4606, 4608.]

INDUSTRIAL AND PERSONNEL PROBLEMS

4554. **Anderson, R. N. What may the college woman expect by way of a job?** *Person. J.*, 1931, 10, 125–132.—Data regarding the placement of 891 college women have been gathered from seven placement bureaus located in cities from coast to coast. These women took their training in 225 colleges, representing the entire country. They entered twenty-eight different vocations. The median salary, as well as the first and third quartiles, for certain occu-

pations, and various age levels are presented and comparisons are made with the University of Michigan study *Earnings of Women in Business and the Professions*. An attempt was made to find out whether or not business school training in addition to the regular four-year college course was an advantage. In clerical occupations women with this additional business school training received on the average $100 a year more than those without it.—(Courtesy *Person. J.*).

4555. **[Anon.] Bericht der VII. Tagung des Verbandes der deutschen praktischen Psychologen in Dortmund.** (Report of the seventh meeting of the association of German applied psychologists in Dortmund.) *Indus. Psychotechn.*, 1930, 7, 186–191; 216–218.—Abstracts are given of several papers on leadership, personality, fatigue and monotony, accidents, etc.—*A. W. Kornhauser* (Chicago).

4556. **Bliss, E. F., Jr. Earnings of machine tenders and of bench workers.** *Person. J.*, 1931, 10, 102–107.—Distributions of piece work earnings of (1) machine tenders and (2) bench workers are given. The curve of the former group is very definitely skewed (negative skewness) toward the low-earning end and is abruptly terminated at the high end. With the bench workers, who use machines only as incidental tools, skewness is in the opposite direction (positive skewness) and the upper end of the distribution tails out. Machinery is seen to limit earnings, and yet on the other hand to be an important source of motivation. It acts as a pacemaker. Methods of controlling skewness of wage distributions are discussed.—(Courtesy *Person. J.*).

4557. **Carrard, A. Erfahrungen in systematischer Anlernung in einer Maschinenfabrik.** (Experiences with systematic training in a machine shop.) *Indus. Psychotechn.*, 1930, 7, 143–153.—In a medium-sized shop in Switzerland a special department was created for training semi-skilled workers. Follow-up studies showed that the training procedures produced results which were considered favorable. Ratings of the workers by means of tests agreed fairly well with ratings in the training school and in production departments.—*A. W. Kornhauser* (Chicago).

4558. **Eliasberg, W. Vorschläge zur statistischen, psychologischen und medizinisch—psychologischen Erforschung von Autounfällen.** (Suggestions for psychological and medico-psychological investigations of automobile accidents.) *Psychotechn. Zsch.*, 1931, 6, 89–91.—In order fully to understand the causes for automobile accidents and to find the proper means for preventing them, the following studies should be made: (1) Statistical investigations of accidents; these should attempt to show the relationship between the frequency of accidents and possession of a driver's certificate, the relative influence of the age of the driver upon frequency of accidents, and the actual conditions, environmental and otherwise, at the moment of the accident. (2) Psychological and medico-psychological studies of automobile accidents; these are important from the point of view of finding the causal factors, of controlling liability of the drivers, and of finding means of preventing further accidents.—*C. Burri* (Chicago).

4559. **Graf, M. Die Einhebelsteuerung von elektrischen Fördermaschinen.** (The one-lever control of electric mine-elevators.) *Indus. Psychotechn.*, 1930, 7, 214–216.—A reply to criticisms advanced by Hochreuter (see V: 4564).—*A. W. Kornhauser* (Chicago).

4560. **Hahn, W. Was will der arbeitende Mensch?** (What does the worker want?) *Indus. Psychotechn.*, 1930, 7, 123–126.—There are reported a number of typical answers to a newspaper questionnaire on workers' attitudes.—*A. W. Kornhauser* (Chicago).

4561. **Heinemann, P. Ein Beitrag zur Psychotechnik des logarithmischen Rechenschiebers.** (A contribution to the psychotechnic of the logarithmic slide-rule.) *Indus. Psychotechn.*, 1930, 7, 167–177.—Experiments with four styles of slide-rule revealed marked individual differences among subjects and showed the advantage for ordinary purposes of the more simple slide-rule.—*A. W. Kornhauser* (Chicago).

4562. **Heydt, C. Eignungsuntersuchung und Personalwirtschaft bei der Deutschen Reichsbahn.** (Research on fitness and the management of personnel in the German national railway.) *Indus. Psychotechn.*, 1930, 7, 136–142.—The author discusses the special demands and special problems encountered in the psychological testing work of the German railways. Follow-up studies have in general shown highly satisfactory results. Illustrative findings are as follows: only 1.3% of the apprentices selected proved unfit; of 10,000 employees studied in Berlin, 95% showed agreement between test ratings and success; a study of 1054 workers in Altona showed 2.2% disagreement.—*A. W. Kornhauser* (Chicago).

4563. **Hilf, H. H. Leistungssteigerung bei der Waldarbeit.** (Increase of efficiency in lumbering work.) *Indus. Psychotechn.*, 1930, 7, 17–25.—The author describes the problem of making time studies and setting standards of work for lumbermen, and the way in which the work methods, tools and arrangements can be changed in the interests of efficiency. From 1925 to 1929, as a result of such improvements, hourly output increased 73% and hourly earnings 37%.—*A. W. Kornhauser* (Chicago).

4564. **Hochreuter, H. Die Einhebelsteuerung von elektrischen Fördermaschinen.** (The one-lever control of electric mine-elevators.) *Indus. Psychotechn.*, 1930, 7, 111–113.—Several points are advanced in criticism of the research conclusions of M. Graf (see IV: 1258).—*A. W. Kornhauser* (Chicago).

4565. **Koelsch, F. Physiologie und Hygiene der Arbeit.** (The physiology and hygiene of work.) Leipzig & Berlin: Teubner, 1931. Pp. 140. M. 3.00.—This volume contains an abstract of the lectures of the author at the München Technische Hochschule. Following an introduction on the field of industrial medicine comes a presentation of the occupational divisions of the German population; then a longer chapter on the biology of human work, on the con-

struction and performance of the mechanized worker and their influence upon the factor of individuality, peculiarities of employment, working time and rest periods, environmental conditions, measures of rationalization, etc. The third chapter is concerned with specific industrial injuries: trauma, electricity, radiating energies, violent sounds, work temperature, air pressure, dust, poisons, and parasites. The last chapter is devoted to technical and legitimate measures of care, by work inspection, social insurance and welfare activities. A short supplement deals with the problem of work in the home.—*F. Koelsch* (Munich).

4566. **Liebmann, H. Eignungsprüfung von Spezialarbeitern in der chemischen Industrie.** (An aptitude test for special workers in the chemical industry.) *Indus. Psychotechn.*, 1930, 7, 97–100.—A test is described which measures the subject's ability to control the temperature of water in a simple apparatus by applying or removing a gas flame. The ability is said to involve a special *Einfühlung*. —*A. W. Kornhauser* (Chicago).

4567. **Lossagk, H. Experimenteller Beitrag zur Frage des Monotonie-Empfindens.** (An experimental contribution to the question of the perception of monotony.) *Indus. Psychotechn.*, 1930, 7, 101–107.—Subjects were required to estimate time periods of one minute throughout a two-hour work period. Three kinds of work were used, varying from fixation of a point on the wall to marking out and cutting a paper design. The author analyzes the different types of curves of time estimation and suggests their significance in dealing with individual susceptibility to monotony.—*A. W. Kornhauser* (Chicago).

4568. **Meichsner, H. Betriebliche Innenwerbung durch Schadenverhütungstafeln.** (Influencing men within industry by means of posters aimed to prevent loss or damage.) *Indus. Psychotechn.*, 1930, 7, 33–53.—Procedures for influencing employees are of vast importance in industry, in the interests of efficiency and morale. The usefulness of posters is especially stressed. The possibilities are pointed out, with illustrations, in seven fields: accident prevention, production, suggestion systems, fire prevention, hygiene, instruction and individual recognition. A quantitative check-up of the influence of certain posters on the occurrence of defective work showed markedly beneficial results.—*A. W. Kornhauser* (Chicago).

4569. **Meriam, R. S. Employee interviewing and employee representation.** *Person. J.*, 1931, 10, 95–101.—Both employee representation and employee interviewing, considered as tools of management to ascertain employee attitudes and grievances, are devices to permit higher executives to check the effectiveness of a company's labor policies. Their successful introduction depends upon the spirit and motives of the higher executives and reasonably good labor relations are prerequisite. Each plan has its peculiar merits and defects. Employee representation is direct and inexpensive. It may fail to deal with obscure and irrational grievances. It has some of the defects found in any political machinery. Employee interviewing gets at the individual's total situation and may help him through his peculiar difficulties. Interviewing is expensive and analysis of the data obtained is difficult. Because of the different characteristics, the two plans might be used to supplement one another. The attitude of the higher executives is all-important.—(Courtesy *Person. J.*).

4570. **Meyer, A. Einfluss der Uebung auf die Arbeitsgeschwindigkeit.** (The influence of practice on speed of work.) *Indus. Psychotechn.*, 1930, 7, 53–55.—Negatively accelerated learning curves were obtained in three factory operations where workers were timed over a period of 39 to 54 days.—*A. W. Kornhauser* (Chicago).

4571. **Meyerheim, H. Die Prüfung der Verfahren zur mechanischen Buchführung nach psychotechnischen Gesichtspunkten.** (Examination of machine bookkeeping procedure from a psychotechnical viewpoint.) *Indus. Psychotechn.*, 1930, 7, 25–28.—The need for improvement of mechanical bookkeeping equipment is discussed in general terms.—*A. W. Kornhauser* (Chicago).

4572. **Moede, W. Eignungsprüfung für kaufmännische Lehrlinge und Angestellte.** (Aptitude tests for mercantile apprentices and employees.) *Indus. Psychotechn.*, 1930, 7, 1–17.—An analysis is made of the various activities found in mercantile establishments. Tests and interview procedures are suggested for ascertaining the abilities required in buying and selling, intellectual ability and economic judgment, and ability in administration and accounting. The "tests" include ones for correctness of speech, knowledge of merchandise and of human motives and characteristics, ability to answer arguments, originality in intellectual tasks concerned with business affairs, judgments of advertisements, performances involving memory, attention, etc., and many others. The author asserts that the test ratings correlate to the extent of .7 to .9 with estimates of efficiency. No detailed results are given.—*A. W. Kornhauser* (Chicago).

4573. **Moede, W. Zur Methodik der Menschenbehandlung.** (Methods of handling people.) *Indus. Psychotechn.*, 1930, 7, 107–111.—The author describes especially methods for getting rid of undesired salaried employees.—*A. W. Kornhauser* (Chicago).

4574. **Moede, W. Zur Arbeitstechnik des Schneidens: die Handschere und ihr Ersatz.** (The technique of cutting: hand shears and their substitutes.) *Indus. Psychotechn.*, 1930, 7, 129–136.—The advantages and disadvantages of hand shears and of machine shearing devices are set forth. A description is given of a new mechanical device for cutting designs in paper for use in the ceramic industry.—*A. W. Kornhauser* (Chicago).

4575. **Moede, W. Zur Methodik der Menschenbehandlung: Vom erfolgreichen Vorgesetzten.** (On methods of handling people: methods of the successful supervisor.) *Indus. Psychotechn.*, 1930, 7, 208–214.—Ten principles of good supervisory method are presented. They include such items as creating trust by keeping faith, willingness to accept responsi-

bility, differential dealing with employees, avoidance of chicanery, setting a good example, etc.—*A. W. Kornhauser* (Chicago).

4576. **Moss, F. A. Preliminary report on medical aptitude tests for 1931–1932.** *School & Soc.*, 1931, 34, 132–134.—*H. L. Koch* (Chicago).

4577. **Oberhoff, E. Analyse der Fördermaschinistentätigkeit und psychologische Begutachtung von Fördermaschinisten.** (Analysis of the work of the mine-elevator engineer and psychological examination of the engineers.) *Indus. Psychotechn.*, 1930, 7, 73–90.—Apparatus was devised for registering all the changes which occur in the operation of the steam-driven mine elevator. An analysis was made of the operations and of the human qualities required. The ability to maintain attention and resist monotony is of utmost importance. Other essential qualities are quickness of reaction, strength and skill of hand, intelligence, quick apprehension of visual signals. A battery of tests is described for measuring these traits. A check-up of test rating with estimates of proficiency of 17 operators showed good agreement.—*A. W. Kornhauser* (Chicago).

4578. **Olivier, O. Der Arbeitsstuhl.** (Workchairs.) *Indus. Psychotechn.*, 1930, 7, 55–59.—*A. W. Kornhauser* (Chicago).

4579. **Olivier, O. Zur Rationalisierung von Nachschlagebüchern: das Fernsprechbuch.** (On the rationalisation of reference books: the telephone book.) *Indus. Psychotechn.*, 1930, 7, 154–156.—The author describes changes that have been made in the Berlin telephone directory and suggests further improvements.—*A. W. Kornhauser* (Chicago).

4580. **Révész, G. Psychotechnische Untersuchungen in der Zigarettenindustrie.** (Psychotechnical investigations in the cigarette industry.) *Psychotechn. Zsch.*, 1931, 6, 80–86.—If before packing, the cigarette boxes are arranged in piles, instead of being placed on the packing table in a disorderly fashion, the total packing time is reduced by 1¼%. By arranging the packing paper according to some rational system, both single-hand and double-hand performance become much more efficient, making a saving in packing time of from 6 to 24%, depending upon the skill of the worker. Adjusting the packing table to an individual's proper height decreases the packing time from 15 to 20%. Improving the labor conditions in the ways stated above raised the total output from an amount usually obtained in 6 hours of work to that equal to 7½ hours of work, without increasing the time. With 130 packers this meant a daily increase of 1½ million in the production of cigarettes. In order to obtain this output under the usual working conditions 24 additional employees would have been required.—*C. Burri* (Chicago).

4581. **Sandor, B. Unfallverhütung in der Schweiz.** (Accident prevention in Switzerland.) *Indus. Psychotechn.*, 1930, 7, 28–30.—A brief summary is given of certain findings on accidents published in a recent official report. Tables are included showing percentages of industrial accidents due to different causes and showing reductions in certain classes of accidents over recent years.—*A. W. Kornhauser* (Chicago).

4582. **Sandor, B. Die Berufseignungsprüfung in Ungarn.** (Vocational aptitude testing in Hungary.) *Indus. Psychotechn.*, 1930, 7, 61–63.—*A. W. Kornhauser* (Chicago).

4583. **Schmitt, E. Charakterologie im Betriebe: Berufstypen.** (Characterology in industry: vocational types.) *Indus. Psychotechn.*, 1930, 7, 90–92.—Five types of worker-personality are described. The number of accidents and cases of disciplinary action are found to be higher for certain of the types. Each "type-group" contained only a few individuals.—*A. W. Kornhauser* (Chicago).

4584. **Schuschakow, A., & Perewersew, G. Anlernung von Lokomotivführern.** (Training of locomotive engineers.) *Indus. Psychotechn.*, 1930, 7, 183–186.—A brief description is given of methods used for instructing locomotive engineers on the railroad system of the U.S.S.R.—*A. W. Kornhauser* (Chicago).

4585. **Tramm, K. A. Zur Rationalisierung der Führerstände auf Fahrzeugen.** (Rationalization of the driver's platform on vehicles.) *Indus. Psychotechn.*, 1930, 7, 59–60.—The author discusses the advantages and disadvantages of different arrangements of the street-car motorman's platform.—*A. W. Kornhauser* (Chicago).

4586. **Tramm, K. A. Zur Psychologie des Vorgesetzten.** (Psychology of the manager.) *Indus. Psychotechn.*, 1930, 7, 92–94.—*A. W. Kornhauser* (Chicago).

4587. **Van Det, E. J. Leidraad voor het oprichten van bureaux of commissies tot voorlichting bij beroepskeuze. VIII.** (Guiding lines for the establishment of bureaus or commissions for vocational guidance. VIII.) *Jeugd en Beroep*, 1930, 3, 293–300.—This is a discussion of the utility of psychological tests in vocational selection. The author describes in some detail the tests used by Roloff in three large metal concerns in Hamburg. Among these tests were sensory-motor tests of visual and tactual acuity and discrimination, of steadiness, reaction-time, etc., on the one hand, and tests of "logical-linguistic" intelligence (as manifested in the completion test of Ebbinghaus, for example), on the other. Both the reliability and the validity of the tests are discussed, and especial attention is devoted to the statistical effect upon correlation of having small numbers of cases. The author finds, however, that even when there are only twelve subjects the correlation between logico-linguistic intelligence and occupational efficiency is significantly high (.83 by the Spearman rank order formula), although the correlations of this efficiency with visual estimative capacity and tactile discrimination are .14 and —.02 respectively. He concludes from this analysis and other studies referred to that in vocational guidance bureaus the general intelligence of candidates is the most important thing to test, no matter what the prospective occupation of the candidate may be.—*E. M. Pilpel* (New York City).

4588. **Wyatt, S. Das Problem der Monotonie und Langweile bei der Industriearbeit.** (The problem of monotony and boredom in industrial work.) *Indus. Psychotechn.*, 1930, 7, 114–123.—See IV: 360. —*A. W. Kornhauser* (Chicago).

4589. **Zirn, H. Eine psychotechnische Eignungsprüfung für den Schuhmacher.** (Psychotechnical aptitude tests for shoemakers.) *Psychotechn. Zsch.*, 1931, 6, 65–80.—Zirn describes a series of tests which he developed for testing shoemaking aptitude. Briefly stated they are: (1) a test for touch sensitivity, important because a skilled tradesman must be able to "feel" the right kind of leather; (2) a visual judgment test, which consists of judging equal distances in nailing, and the cutting of soles and heels, in different sizes; (3) a form test, which shows whether or not an individual possesses ability to copy patterns; (4) a test for cutting ability; (5) a test in which the subject is required to arrange the hides in such a way as to avoid all possible waste of leather; (6) last, a visual memory test, in which the apprentice has to reproduce different patterns used in shoemaking, such as patterns of heels, soles, points, etc.—*C. Burri* (Chicago).

[See also abstracts 4342, 4347, 4379, 4430, 4523.]

CHILDHOOD AND ADOLESCENCE

4590. **Anderson, J. E., & Goodenough, F. L. How normal children grow.** New York: Parents' Magazine, 1930. Pp. 28.—The book is a discussion of the phases through which children pass in their physical, mental, and character development. The periods of development and the main characteristics of each are given by years, although, obviously, there can be no exact time boundary set for a continuous process of change. The first period, infancy, is regarded as extending through the first year, or until the child walks. The next period, early childhood, comprises the next five years; middle childhood extends from sixth to the tenth year, and late childhood from the tenth year to the onset of puberty. From puberty to adulthood is usually spoken of as adolescence and terminates when full growth is attained. The child must always be recognized as an individual, at every point of his development, and never as a small adult. The periods and the different phases are discussed in detail and so treated as to provide a guide for parental observation, comparison and understanding along all lines of the child's growth. It may serve as a basis for more sympathetic and intelligent treatment of the individual, thus helping him to make the adjustments necessary to a happy and successful life.—*E. V. Brill* (Malone, N. Y.).

4591. **Beaman, F. N. The value of social factors in the training of the defective child.** *Amer. J. Sociol.*, 1931, 37, 240–246.—On the whole, special education has been successful in meeting the academic, vocational and physical needs of the mentally defective child. The greatest problem, that of training for personality or for effective social participation, has been ignored. An experiment in socializing the defective child was conducted in the public schools of Fond du Lac, Wisconsin. The essential methods and materials used include: introducing new material containing socializing influences; providing appropriate group activities; using only such academic materials as bear upon the real needs of the children; careful check of academic progress by means of standardized tests. In the adjustment of the personality and of the emotional life of the pupils which resulted, came increased facility in academic skills and increased mental activity. A similar experiment being conducted at the Montefiore Special School in Chicago is in too early a stage to draw conclusions, but so far is yielding much the same results.—(Courtesy *Amer. J. Sociol.*).

4592. **Bott, H. A concept of discipline for children and parents.** In *Toward Understanding Children. Univ. Iowa Extension Bull.*, 1931, No. 261, 19–30.—Discipline is defined as the principle of control or regulation in life rather than punishment and repression. The stages in acquiring control are pointed out. When we reach the stage of self-regulation or self-control we are truly free. In addition to a direct control which frees the child for satisfying activity, and an indirect control which supplies the materials on which that activity can exercise itself, the child needs practice in regulating his own actions. The real meaning of discipline is the art of making disciples, of converting others to that way of life which we value and follow ourselves.—*B. Wellman* (Iowa).

4593. **Cohen, D. W., Jewell, E., & Richardson, I. Child guidance clinic work in a semi-rural county.** *Psychiat. Quar.*, 1931, 5, 468–475.—This is the report of 397 cases examined at a travelling clinic over a period of three years in one of the counties of New York state. Statistical data showing the types of treatment recommended and the results of these recommendations are given. The fact that local workers are in need of training in psychiatric social work is particularly stressed. The degree of successful treatment, although adequate in many cases, was greatly curtailed because of the lack of these trained workers. Other recommendations included the establishment in country schools of special educational facilities for backward children, well-qualified visiting teachers, facilities for the correction of the physical defects of children, and the education of teachers and school administrators in mental hygiene principles.—*E. T. Burr* (Vocational Service for Juniors).

4594. **Hazlitt, V. Modern trends in infant psychology.** *Brit. J. Educ. Psychol.*, 1931, 1, 119–129. —The author points out that child psychology has progressed most rapidly during the past ten years with outstanding results in the fields of the reflexes and the effects of conditioning through emotions; relatively small effects of practice in comparison with natural maturation are shown; emotional life does not seem to be limited to the fears defined by Watson, but to involve other conflicts; evidence of social activity is found even in the first three years with indications of intro- and extrovert types; children's thinking and interests have been studied, with controversies introduced as to the form in comparison with those of adults; and the psychological development of children has been studied with respect

to norms for detailed activities and special problems. The nursery school movement is recognized as an important item with its opportunities for social development of children with understanding supervision and the opportunity for child study. The danger of child psychology just now is in premature theories for the explanation of observed facts.—*K. M. Cowdery* (Stanford).

4595. **Hicks, J. A., & Ralph, D. W. The effects of practice in tracing the Porteus diamond maze.** *Child Development*, 1931, 2, 156–158.—The experimental group (ages 24 to 40 months) traced the maze 20 times with the preferred hand at weekly intervals, and 4 times with the non-preferred, 2 at the beginning and 2 at the end. A control group made 6 tracings with the preferred hand and 4 with the non-preferred. Results show that the practice did not result in significantly greater skill. The difference in skill between the preferred and non-preferred hands increased from 4.6 on the initial test to 10.2 on the first end test.—*M. P. Montgomery* (Faribault, Minn.).

4596. **Künkel, F. Jugendcharakterkunde.** (A study of the character of youth.) Schwerin: Bahn, 1931. Pp. 128. M. 2.80.—This theory and practice of adolescence is put forth not only for scholars, parents and directors of youth, but also for youth itself between 15 and 20 years of age. Starting with the antithesis between material, objective and personal egocentric attitudes, the defects of education and their consequences are next set forth. Softness leads to lack of objectivity just as timidity and obstinacy do. In play and work, false foundations develop always more sharply. Patience and impatience, interest and dulness may be understood as something self-evident from this development. The stubbornness and compliance, megalomania and arrogance of some, and the negativity, shirking and dead passivity of others, arise of necessity from the unreal foundation. Followers and leaders, disturbers of the peace and buffoons, all sorts and rudenesses of youthful living together are made comprehensible to youth itself. The different attitudes toward the sex problem, the patient or impatient, the too yielding and the too aggressive are likewise explained by the previous history of the individual character. On this foundation, sex problems are presented clearly and frankly. He who misuses another does not merit love. He who misuses himself is likewise incapable of love. To learn to love is to learn to wait and understand, and that means to become grown up. But the crises, which are a result of a false foundation, in the long run force a better adjustment through sheer need and misery. They are the painful, but instructive steps which lead from childhood to adulthood.—*F. Künkel* (Berlin).

4597. **Lehman, H. C., & Witty, P. A. Some factors which influence the child's choice of occupation.** *Elem. School J.*, 1930, 31, 285–291.—The reasons given by 26,828 boys and girls for their vocational preferences are herein presented.—*P. A. Witty* (Northwestern).

4598. **Lowrey, L. G. [Ed.] Institute for Child Guidance studies. Selected reprints.** New York: Commonwealth Fund, 1931. Pp. viii + 290. $1.50.—Collection of the following reprints, grouped as social, medical, psychological, and child training: Robb, C. C., *The Problem of Meeting the Needs of the Social Worker who Refers Cases to a Psychiatric Clinic* (*Ment. Hygiene*, 1927); Lowrey, L. G., *The Contribution of Mental Hygiene to the Differentiated Fields of Social Work* (*Proc. Nat. Conf. Social Work*, 1928), *Competitions and the Conflict over Difference* (*Ment. Hygiene*, 1928), *The Study of Personality* (*Amer. J. Psychiat.*, 1929), *Psychiatric Methods and Technique for Meeting Mental Hygiene Problems in Children of Preschool Age* (*28th Yrbk. N.S.S.E.* and *Ment. Hygiene*, 1929), *Training for the Profession of Parenthood* (previously unpublished); Moore, K., *Psychiatric Social Service in a General Hospital Clinic* (*Hosp. Soc. Serv.*, 1930); Reynolds, B. C., *The Rôle of the Psychiatric Social Worker in Therapy* (previously unpublished); Towle, C., *Certain Changes in the Philosophy of Social Work* (*Ment. Hygiene*, 1930); Rosenow, C., *The Incidence of First-Born among Problem Children* (*J. Genet. Psychol.*, 1930), *One More Definition of Heredity and Instinct* (*Psychol. Rev.*, 1928); Levy, D. M., *Fingersucking and Accessory Movements in Early Infancy* (*Amer. J. Psychiat.*, 1928); Lippman, H. S. *Restlessness in Infancy* (*J. Amer. Med. Asso.*, 1928); Tiebout, H. M., and Coburn, M., *Delinquency: Problems in the Causation of Stealing* (*Amer. J. Psychiat.*, 1930); *Character Building and Stealing* (*Relig. Educ.*, 1929); Beck, S. J., *The Rorschach Test and Personality Diagnosis: The Feebleminded* (*Amer. J. Psychiat.*, 1930). Each article retains its original bibliography, and there is appended a list of articles (three by Levy, of which one with Coburn; one by Lippman; eight by Lowrey; one by E. F. Symmes; and four by Tiebout) by staff members not reprinted in this volume.—*R. R. Willoughby* (Clark).

4599. **Natanson, D. M. Neurological defects observed in school children.** *Med. J. & Rec.*, 1931, 134, 19–21.—"In children of school age the commonly observed defects are: chorea, tics, old cases of infantile paralysis, the 'nervous child,' cases of enuresis, mannerisms and complexes, epilepsy, mongolism, mentally defective and mentally retarded, sequelae of encephalitis lethargica, older forms of paralysis and cases without demonstrable lesions, but chiefly emotional and temperamental disturbances." In treatment it is necessary to combine the services of the physician, the educator, the home and all the good influences of the environment.—*R. C. Givler* (Tufts).

4600. **Phillips, A. Sibship: intelligence and behavior.** *Psychol. Clin.*, 1931, 20, 97–115.—The statistical section of this study deals with 226 children coming from 102 families in which at least two children had been examined in the psychological clinic of the University of Pennsylvania. The mean IQ was 106.8, and comparisons show that of siblings the older appear to have the advantage as far as IQ is concerned. The clinical section presents the results of a study of ten pairs of siblings examined in the psychological clinic in May and June, 1931.

Marked differences in personality traits and in IQ are found between the members of most of the pairs. —*J. T. Metcalf* (Vermont).

4601. **Piaget, J. Retrospective and prospective analysis in child psychology.** *Brit. J. Educ. Psychol.*, 1931, 1, 130–139.—The author discusses criticisms by Isaacs of the author's interpretations of children's conceptions; and characterizes Isaacs' method as functional and prospective, whereas that of the author is retrospective and structural. Each deals with the same material from a different point of view; they are mutually complementary, not antagonistic. The structural analysis points out specific and basic differences between infantile and adult concepts, without preventing the further functional and prospective analysis of the same psychological activities.—*K. M. Cowdery* (Stanford).

4602. **Richards, E. L. Facts and fancies about the nerves of childhood.** In *Toward Understanding Children. Univ. Iowa Extension Bull.*, 1931, No. 261, 31–39.—Annoying behavior which is attributed to "nerves" or "badness" is symptomatic of a great variety of conditions, among them parent worry, poor physical condition, inferior intellectual endowment, faulty habit training and insufficient outlet for energies. Individual differences should be taken into account. Upon the teacher falls largely the burden of spotting children handicapped in their adjustment to life, of trying to understand their specific limitations and of devising some means of giving them training. Teachers in training should have more opportunities to get closer to behavior problems through mental hygiene clinics. There should be more active cooperation between home and school.—*B. Wellman* (Iowa).

4603. **Richards, E. L. The rating of intelligence as an ingredient of mental health.** In *Toward Understanding Children. Univ. Iowa Extension Bull.*, 1931, No. 261, 40–54.—Children who are misfits in their school grades because of mental retardation are discussed, with illustrations of undesirable behavior arising out of maladjustment to school.—*B. Wellman* (Iowa).

4604. **Richards, E. L. Vocational planning for the adolescent.** In *Toward Understanding Children. Univ. Iowa Extension Bull.*, 1931, No. 261, 55–66.—In vocational planning for the adolescent, the first step for parents is to find out what the individual is fitted for. Those children who are handicapped biologically, such as the tuberculous and the cardiac, should avoid certain occupations. The child's satisfaction rather than the satisfaction of the parent should be the objective.—*B. Wellman* (Iowa).

4605. **Stern, W., & Stern, C. Erinnerung, Aussage und Lüge in der frühen Kindheit. Monographien über die seelische Entwicklung des Kindes. II.** (Memory, testimony and lies in early childhood. A monograph on the mental development of the child.) (4th ed.) Leipzig: Barth, 1931. Pp. 256. M. 13.20.—The book, which first appeared in 1908, has now become an entirely new work, due to reworking and expansion. Although the records of the authors on their own children still form the nucleus of the book, there are numerous well-known observations of other people brought in, by the addition of which the picture which is drawn of the inner life of the first years is substantially enriched. The whole psychological attitude of the book has also been greatly changed. Above all, the personalistic standpoint of W. Stern is put forth; likewise he has found his thesis in a newly written first chapter, *Personalistics of Memory*, in which the significance that recollection has in the construction of personality is described. The second chapter, *A Psychograph of the Development of Memory*, describes the development of the author's oldest child in relation to recognition, memory ability, apparent lies and lies. The third chapter, *The Development of Memory Ability*, contains a consideration of the same manifestations in many children, and the fourth chapter is *Deficiency and Limits of the Capacity for Memory and Testimony*. Here are described other experimental investigations on young children and the problem of the young child as a witness is clearly set forth in a number of cases. The largest portion of the new part of the book is in the fifth chapter, *Apparent Reality*. The conditions of suspense between life in a make-believe world and life in the real world, so characteristic of the small child, are treated as examples of the dream consciousness, lasting phantasies and apparent or embryo lies. A bibliography and a subject index conclude the book.—*W. Stern* (Hamburg).

4606. **Tiede, H. M. Das Kind im Spiegel seiner Schrift.** (The child in the light of his handwriting.) Konstanz: Stadler, 1931. M. 2.85.—In the field of the graphology of children's handwriting, the literature up to the present has been very limited. Drawn from an extensive collection of the writing of children at various ages, this work tells what significance for education the handwriting of children has. The author refers to the work of Klages and Manna Becker. The following are the chapter headings: The writing child; In the workshop of childish character; Writing position and the foundation existing in the child for it; What pressure in children's writing tells; The connecting forms of the writing child; Sense of regularity in children's writing; The writing endowment of children; Inhibitions and disturbances in the writing of children; Lies in children's writing; From childhood to adulthood.—*H. M. Tiede* (Leipzig).

4607. **Vance, T. F. The food selections of nursery school children.** *Proc. Iowa Acad. Sci.*, 1930, 37, 343–350.—Nursery school children were observed for the order of eating the various food items on their menus. Meats ranked first, sandwiches and eggs next, with the exception of two raw vegetables, and carrots, green beans and onions last. Raw vegetables were preferred over buttered and creamed vegetables. The order of selection correlated .78 between the two quarters of school. Between order of tasting and order of finishing the correlations were .76 and .64 for the two quarters. The correlation between IQ on the Merrill Palmer test and time it took a child to eat was — .25.—*B. Wellman* (Iowa).

4608. **Vance, T. F., & Grandprey, M. The evaluation of the musical capacity of nursery school chil-**

dren. *Proc. Iowa Acad. Sci.*, 1929, 36, 321–328.—The responsiveness of 31 nursery school children to musical situations was studied. The responses were general responses to music played, beating time to victrola music with the triangle, imitating rhythmical patterns on the triangle and imitating singing an interval. The musical aspects of the home environment were rated. A correlation of .37 was obtained between the rhythm test and age for the nursery school children, while the correlation for kindergarten children was .03. The authors point out that to give a test of special aptitude too early may give merely a measure of maturity and not of the aptitude in question. A correlation of .62 was obtained between responsiveness and home environment. The average scores in singing were higher for descending intervals than for ascending intervals. In the rhythm test the patterns in which the quarter notes preceded the half notes received higher scores than those of the reverse order.—*B. Wellman* (Iowa).

4609. **Winkler, H. Psychische Entwicklung und Krüppeltum.** (Psychic development and crippling.) Leipzig: Voss, 1931. Pp. 122. M. 6.80.—For the first time this work brings to the fore investigations on the mental peculiarities of crippled children by means of objective measurements and psychological methods. The problems of the intelligence test as a scaling of intelligence for practical use are comprehensively grouped together. From the results it appears that the intelligence of the children in question is not reduced through defects, but that temporary checks in mental development appear which are, for the most part, due to hindrance of movement or to many years of being confined to a sick bed. At the outset, the significance, in general, of lack of movement as a check on psychic development is considered. Thereby the great significance of psycho-motor control for the connection between body and mind is shown. More than hitherto, the present work has regard for the medical foundation in the consideration of the single defect and evaluates it psychologically. However, psychotechnical vocational aptitude tests, laboratory observations and trial controls also give conclusively a practical meaning to the results of the investigations. The investigation as to the work capacity of crippled children shows, for example, what influence the different defects exercise on the individual's progress in work, and therewith throws some light on the selection of the most advantageous profession for him. A separate chapter is devoted to the review of character construction and form of expression in general, and to the peculiarities in the character formation of the defective in body. The work is written principally for the instructor in therapy, psychologico-pedagogical considerations and conclusions being found everywhere in it. One chapter is occupied in particular with the measures of pedagogical therapy used in schools and homes for cripples. The bibliography gives 60 medical and psychological works in the field of the care of cripples.—*H. Winkler* (Leipzig).

4610. **Witty, P. A., & Lehman, H. C. A study of vocational attitude and intelligence.** *Elem. School J.*, 1931, 31, 735–746.—900 boys in grades V, VI, and VII of Kansas City, Missouri, were selected from several thousand and divided into three groups according to National Intelligence Test ratings. The vocational attitudes of these dull, normal, and bright boys were analyzed in detail.—*P. A. Witty* (Northwestern).

[See also abstracts 4341, 4411, 4419, 4425, 4434, 4449, 4465, 4487, 4488, 4492, 4511, 4531, 4537, 4616, 4629.]

EDUCATIONAL PSYCHOLOGY

4611. **Ballenger, H. L. The validation of the Iowa elementary language tests.** *Univ. Iowa Stud.: Stud. Educ.*, 1931, 6, No. 3. Pp. 59.—The Iowa elementary language tests, composed of twelve tests of 371 items for measuring various language abilities, were given to a thousand children from grades four to nine inclusive. The tests have an average reliability of .881. They are so designed that they indicate the abilities in which the various pupils are weak. They correlate .4 with teachers' estimates. The average correlation of each of the tests with the other tests is lower than the correlation of that test with the whole group of tests.—*B. Wellman* (Iowa).

4612. **Buswell, G. T. Summary of arithmetic investigations (1930).** *Elem. School J.*, 1931, 31, 756–766.—A summary, including critical or quantitative work only, of 63 studies which appeared in 1930. All references are annotated.—*P. A. Witty* (Northwestern).

4613. **Claparède, Ed. L'éducation fonctionnelle.** (Functional education.) Neuchatel: Delachaux et Niestlé, 1931. Pp. 267. 4.50 fr.—Although destined particularly for educators, to whom it seeks to explain the provinces of conduct, provinces which it is necessary to put into action if one wishes to mobilize the child's activity, this book contains much psychology. The first half is consecrated to the origins of functional psychology, and to the general laws of conduct. The author gives ten general functional laws: (1) law of need: "All need tends to provoke the actions necessary to its satisfaction"; (2) law of amplification of mental life: "The development of mental life is proportional to the discrepancies existing between needs and the means of satisfying them"; (3) law of becoming conscious; (4) law of anticipation; (5) law of interest; (6) law of momentary interest; (7) law of reproduction of like; (8) law of trial and error; (9) law of compensation; (10) law of functional autonomy. The rest of the book contains studies already published: *J. J. Rousseau and the Conception of Childhood; The Psychology of Intelligence* (in which the author gives the derivation of intelligence from the trial and error method seen among the lower animals); *The Function of Will; The Psychology of the Activity School; A Functional Method of Teaching Languages; Why Does One Yawn?* etc. The last chapter is concerned with a discussion of this question: "Is education life or preparation for life?" and the author concludes "It is precisely in order to prepare for life that education must be a life. And if education proposes to be a preparation for life, without

itself being life—it does not prepare for life!"—*M. R. Lambercier* (Geneva).

4614. **Dolch, E. W. The psychology and teaching of reading.** New York: Ginn, 1931. Pp. v + 261. $1.80.—Part I is concerned with beginning reading, considering the various reading methods and the place of phonics in learning to read. The author concludes that the combining of these methods is necessary. Part II considers the developed learning process, the factors controlling it and the various kinds of reading.—*E. B. Heim* (Provo, Utah).

4615. **Eaglesham, E. A comparison of the effects on retention of various methods of revision.** *Brit. J. Educ. Psychol.*, 1931, 1, 204–214.—Three class groups equated for grade, age and ability were given identical lessons in geography. Periods of review by means of (1) a revision lesson by the instructor, (2) a written composition, and (3) oral discussion by pupils themselves for the separate groups were followed by a test—the same for all groups. The group using the oral discussion method of revision received the highest average mark, that using the revision lesson second and that using the written composition lowest. A single class given the same lessons, but reviewed half of the subject matter by oral compositions and half by instructor's lesson, was tested by means of a test the parts of which were equated as to difficulty with the parts corresponding to the divisions of the subject matter reviewed differently. The differences in average scores for the two parts were not significant, but the oral composition method appears at least as good as the more customary instructor's method.—*K. M. Cowdery* (Stanford).

4616. **Gates, A. I., Peardon, C. C., & Sartorius, I. C. Studies of children's interests in reading.** *Elem. School J.*, 1931, 31, 656–670.—The results of sixteen separate investigations of the reading interests of children in grades I, II, and III are presented briefly.—*P. A. Witty* (Northwestern).

4617. **Gray, W. S. Summary of reading investigations (July 1, 1929, to June 30, 1930).** *Elem. School J.*, 1931, 31, 531–546.—An annotated list of reading investigations for one year.—*P. A. Witty* (Northwestern).

4618. **Gregor, —. Psychologische Grundlagen der Erziehung.** (The psychological foundation of education.) Schloss Flehingen: Verl. d. Erziehungsheimes, 1931. Pp. 67.—The article presents a short abstract of psychology, which is considered as an aid for the training courses of educational institutions. —*Gregor* (Karlsruhe).

4619. **Lancelot, W. H. Standards of measurement of teaching ability.** *School & Soc.*, 1931, 34, 236–238.—The author attempts to evaluate various frequently used criteria of teaching ability and reports roughly the results obtained at Iowa State College with two of these, viz., the percentage of an instructor's students who complete satisfactorily the sequence of related courses of which his subject forms a part, and the percentage of an instructor's students who return voluntarily for later elective courses in the same subject-matter field. Teachers differ widely, it was discovered, when measured by the standards named. Teaching skill, moreover, appears not to be general, but varies markedly for a given instructor with the particular subject taught and the intellectual caliber of the students.—*H. L. Koch* (Chicago).

4620. **Lefever, D. W. The prognostic values of certain groupings of the Thorndike Intelligence Examination for High School Graduates.** *Univ. So. Calif. Stud.: Educ. Ser.*, 1930, No. 9. Pp. 119.—The author undertakes a detailed analysis of the predictive value of the Thorndike examination for scholastic grades, using as subjects 884 University of Southern California freshmen. For purposes of the study the test elements were divided into the following groups: (1) reading comprehension, (2) linguistic ability, (3) mathematical ability, (4) following printed directions, and (5) general information. The relationships between scores on each group of test elements, the test as a whole, and scholastic grades in the twenty freshman courses having the heaviest enrolment were carefully studied. The best single measure for predicting scholarship scores during the freshman year, as shown by correlations with the criterion, was found to be the total Thorndike score. For specific courses, however, certain sections of the test were found to show larger correlations, notably linguistic ability and mathematical ability. Prognostic values as shown by the regression weights indicated that linguistic ability and mathematical ability were the two outstanding sections of the test. The reading comprehension section should be given slightly less than one-third the weight given the linguistic ability section for predicting general scholastic success, while the last two sections of the test, ability to follow printed directions and general information, should receive approximately zero weights. Reports are given in detail for each of the twenty courses studied.—*J. C. Kurtz* (Washington, D. C.).

4621. **Lorimer, F. [Ed.] The making of adult minds in a metropolitan area.** New York: Macmillan, 1931. Pp. xiv + 245. $2.00.—This book is the report of the Research Director of the Brooklyn Conference on Adult Education. It presents a critical analysis of a large amount of material gathered for the most part by the questionnaire procedure but in part by direct interview. The main points considered are the educational status of the inhabitants of Brooklyn, the extent and character of present adult training, the extent to which various agencies contribute to the various types of training, and the actual and social demands for reforms and extension in adult education. More specific chapters deal with adult education and the provisions therefor in commerce and industry, the training of foreigners, and training for parenthood and a more intelligent social life. Opportunities for and training in those fields which contribute to a well-developed social conscience are very meager. The author presents four suggestions for developing adult education, which, as he says, already appears to be a momentous affair, but the possibilities of which have not been generally appreciated. These suggestions

are (1) academic and vocational schools, already well provided, (2) newspapers, radio programs, libraries, museums, botanical gardens, and lecture institutes, (3) public neighborhood educational centers for adults, which offer much to educators with vision, and (4) independent community centers, educational clubs, study groups, and church educational programs.—*L. B. Hoisington* (Oklahoma).

4622. **Moss, F. A. Aptitude tests in selecting medical students.** *Person. J.*, 1931, 10, 79–94.—In order to meet the problems of selecting medical students, for the last two years the Association of American Medical Colleges has been experimenting with aptitude tests for predicting success in medical schools. This work has been under the supervision of a special committee of the Association. Aptitude test results have been correlated with two years' work in medical schools for 963 students, and with first year medical school grades for 4811 cases. High correlations were obtained with both groups. Study was also made of the relative value of the aptitude test as compared with other criteria for predicting success in the medical school. The criteria studied, in the order of their value as shown by the study, were: aptitude test; grades in premedical subjects; interview ratings given by medical school admissions committees; and semester hours of premedical credit least valid. From the study, the best criterion seemed to be a combination of premedical grades and test results. After two years' experiment, the results were definitely encouraging, and at the last meeting of the Association of American Medical Colleges, the aptitude test was adopted as a normal requirement for admission to American medical colleges. In carrying out this requirement, the test has been administered this year to approximately ten thousand premedical students applying for admission to the medical schools.—(Courtesy *Person. J.*).

4623. **Newkirk, L. V. Validating and testing home mechanics content.** *Univ. Iowa Stud.: Stud. Educ.*, 1931, 6, No. 4. Pp. 39.—Selection was made of the outstanding projects which are suitable for home mechanics content and a testing technique was developed for use in the diagnosis of individual difficulties and the measurement of achievement in home mechanics classes in the junior high school. If a pupil made an unusually high score on the Newkirk-Stoddard home mechanics test, he was found to have "mechanical intelligence," high IQ and a knowledge of the outstanding home mechanics jobs. There was no significant correlation between the Stenquist mechanical aptitude test and the Newkirk-Stoddard test. Neither of the tests correlated highly with IQ. There was a significant positive correlation (.55 to .64) between marks given by shop teachers and the home mechanics test.—*B. Wellman* (Iowa).

4624. **Nichols, M. L. Getting the student to use his own intellect.** *Science*, 1931, 74, 152–153.—The author favors modification of present laboratory methods in the direction of better adaptation to individual needs and motivation.—*R. R. Willoughby* (Clark).

4625. **Petro-Lazar, C. L'anthropométrie et les exercices scolaires. Contribution à l'éducation physique.** (Anthropometry and school exercises. Contribution to physical education.) Neuchatel: Delachaux et Niestlé, 1931. Pp. 113.—The aim of physical education is to assure the physical and moral health of children. Among other means to this end gymnastics and games are used. It has been thought, from the mental point of view, that since homogeneous classes of students have been formed, this same grouping might be kept for gymnastic lessons. The researches of the author aim (1) to show the heterogeneity, whether in physical aptitude or in physical development, of classes of children grouped by chronological age or by school age, and the inconveniences which result from it, and (2) to find a criterion which permits grouping the students so that they may profit most from gymnastic exercises. The author has measured 508 boys 8–15 years old from the primary schools of Geneva, taking on each one a dozen anthropometric measurements (sitting height, standing height, weight, vital capacity, etc.) and six physical tests of speed, ability and strength (running, jumping, pull-ups on the bars, etc.). Besides, for his calculations he chose more particularly a group of about one hundred individuals of the same chronological age (13 years). Is homogeneity of physical aptitude or homogeneity of physical development preferable? To obtain a measurement of physical development the author examined 15 anthropometric measures (of which seven were related) which gave the greatest correlations with the other measures, and also retained five measures to serve as criteria. For the verification of these criteria (to which the author added 6 others suitable as criteria of physical development) as to their efficacy as means of grouping, the author formed sample classes of 25 children grouped according to each of these criteria, and took for each criterion the most homogeneous class. He then examined each class as to homogeneity (measured by the coefficients of variability) for the other criteria. From all the calculations, the conclusion is that height, weight and vital capacity are the best criteria, while school age and chronological age show themselves to be the worst. But the most satisfactory criterion to insure homogeneity in gymnastic classes from the point of view of physical development is the Dd criterion (so named by the author) formed by the arithmetical mean of the deciles of each of the criteria, height, weight and vital capacity. These calculations show also the small correlation between physical development and chronological or school age. From the point of view of physical aptitude the author shows also that a certain relation exists between aptitudes and certain anatomical types defined by the skeletal index (macrocephalic and brachycephalic) but that the classes formed on the basis of homogeneity in a single physical aptitude (criteria of speed, strength, ability, etc.) would present a heterogeneity of physical development worse than the ordinary classes arranged by school age. A grouping on the basis of physical aptitude cannot interest physical education, which, by the diversity of the exercises which it

recommends, addresses itself to all the aptitudes at once. However, homogeneity of physical development must serve as a basis. The author ends by showing by a comparison of classes formed by following scholastic age, and classes formed following his criterion Dd, how much homogeneity is improved by his method.—*M. R. Lambercier* (Geneva).

4626. **Spence, R. B., & Duncan, R. Educational psychology—some general aspects of learning and teaching.** *Psychol. Bull.*, 1931, 28, 533–565.—269 titles are reviewed under the heads: motivation, learning, individual differences, class size, lecture method vs. more individualized methods, study methods, examinations, transfer.—*J. F. Dashiell* (North Carolina).

4627. **Thompson, W. H. Experiment in remedial reading.** *School & Soc.*, 1931, 34, 156–158.—Of the 237 entering freshmen at Teachers College, University of Nebraska, 18% scored lower than the tenth-grade norm on the Whipple High School and College Reading Test. Retests given after one semester of college work showed that for the freshman group as a whole there was no improvement in reading ability. Optional remedial instruction in reading given one hour a week for 8 weeks to 38 markedly deficient students did tend to improve their reading skill. Relatively more course failures, moreover, occurred in the group of poor readers receiving no guidance than in the group submitting to remedial instruction.—*H. L. Koch* (Chicago).

4628. **Tyler, H. T. The bearing of certain personality factors other than intelligence on academic success.** *Teach. Coll. Contrib. Educ.*, 1931, No. 468. Pp. vi + 89.—The problem is the discovery "of the relationships existing between academic success in normal school work as measured by the average of first semester marks, and the probable emotional adjustment of the students." The instrument for measuring emotional adjustments is the SOGI (subjective, objective, group, ideal) rating scale. "The scores are of very satisfactory reliability . . . their validity for predicting academic marks is uniformly low." "Improvement in prediction of academic success is to be sought along other lines." Copies of the forms of the SOGI scales, and a bibliography of 95 titles are given.—*J. M. Stalnaker* (Chicago).

4629. **Woody, C., & Bergman, W. G. Achievement and interests of high school seniors in Michigan.** *Univ. Mich., Bur. Educ. Refer. & Res. Bull.*, 1930, No. 134. Pp. 55.—(*Soc. Sci. Abst.* III: 13031).

[See also abstracts 4423, 4449, 4470, 4554, 4591, 4603, 4604.]

BIOMETRY AND STATISTICS

4630. **Bruce, D., & Reineke, L. H. Correlation alinement charts in forest research. A method of solving problems in curvilinear multiple correlation.** *U. S. Dept. Agric. Techn. Bull.*, 1931, No. 210. Pp. 88.—(*Soc. Sci. Abst.* III: 13206).

4631. **Cureton, E. E. Errors of measurement and correlation.** *Arch. of Psychol.*, 1931, No. 125. Pp. 63.—The present investigation examined the assumptions which underlie the principal formulas of correlational psychology. Educators and psychologists often employ statistical formulas in the solution of their problems without noting the assumptions on which these formulas are based. Reliability, validity, correlation for attenuation and the theory of factors are worked out. A summary of important formulas with standard errors is also given.—*E. M. Achilles* (Columbia).

4632. **Perger, W. F. The nature and use of the harmonic mean.** *J. Amer. Statis. Assn.*, 1931, 26, 36–40.—The confusion in a number of texts between the arithmetic, harmonic, and geometric means is noted. Any ratio may be stated in two forms, keeping one or the other of the factors constant. In seeking an average the arithmetic mean should be used when it is desired to keep constant that factor which is constant in the rates as stated. The harmonic mean is to be used when the recorded rates make variable the factor desired to be constant. Examples from races, time and motion study, pupil achievement in arithmetic, and price ratios are discussed.—*E. B. Greene* (Michigan).

4633. **Kondo, T., & Elderton, E. M. Table of functions of the normal curve to ten decimal places.** *Biometrika*, 1931, 22, 368–376.—x and z values for each permille of frequency are given to the tenth decimal place for the normal curve, with symbols to indicate the nature of the eleventh decimal place.—*E. B. Greene* (Michigan).

4634. **Neyman, J., & Pearson, E. S. Further notes on the χ^2 distribution.** *Biometrika*, 1931, 22, 298–305.—A continuation of a previous paper interpreting the χ^2 tests for goodness of fit, discussing (1) the modification which occurs in certain groupings, (2) the adequacy of the χ^2 integral in the case of very small samples, and (3) a correction of an error in the earlier paper dealing with the comparison of two samples.—*E. B. Greene* (Michigan).

4635. **Pearson, K., & Stoessiger, B. Tables of the probability integrals of symmetrical frequency curves in the case of low powers such as arise in the theory of small samples.** *Biometrika*, 1931, 22, 253–283.—Seven-place tables follow the derivation of formulas for the probability integrals of arrays containing from 2 to 31 cases. These are compared with the probability integral of the normal curve with a standard deviation of $\frac{1}{\sqrt{n-3}}$, and several examples illustrate the use of the tables.—*E. B. Greene* (Michigan).

4636. **Rietz, H. L. Comments on applications of recently developed theory of small samples.** *J. Amer. Statis. Assn.*, 1931, 26, 150–158.—Sample numerical applications are presented comparing a small sample with various universes and comparing two small samples, using the integral tables published in *Metron* in 1925 by "Student." "In the light of these theoretical and experimental results further investigation of the applicability of these procedures to samples differing widely from normal is necessary, but ordinarily they are more appropri-

ate than the older procedures."—*E. B. Greene* (Michigan).

MENTAL TESTS

4637. **Freeman, F. S. The factors of speed and power in tests of intelligence.** *J. Exper. Psychol.*, 1931, 14, 83–90.—The Dearborn, National, Otis and Terman tests are chiefly power tests, in which speed is relatively unimportant. The Otis Advanced Examination is an exception, for in it speed is of fair importance. There is a small but ever-present group of individuals who are penalized by an imposed time limit. The author denies the conclusions of Peak and Boring with respect to the importance of speed in determining individual differences in the intelligent act. Each test should be examined by the same technique, in the opinion of the author.—*S. Renshaw* (Ohio State).

4638. **Gillis, F. M. Correlates of intelligence in college students.** *School & Soc.*, 1931, 34, 266–270.—Freshmen entering Barnard College from 1926 to 1931 and the present senior class constitute the subjects of the study. When these were grouped according to the occupation of their fathers, the rank order of the groups on the basis of the median score made on the Thorndike intelligence examination was: professional, skilled mechanics, business and technical, and unskilled. In the professional group the children of teachers, engineers, architects, and writers scored highest. Those majoring in English, natural sciences, social sciences, and foreign languages were about equal in number and their median intelligence test scores ranked in the order named, the differences being slight, however. Certain subjects such as physics, anthropology, mathematics, zoology, psychology, and English seemed to attract students of superior ability. Students majoring in the classics, art, and music, on the other hand, rated lowest. For the first two years after graduation, the correlation between earnings and intelligence test score was zero or less, but with the third year after graduation there began to be a slight positive correlation.—*H. L. Koch* (Chicago).

4639. **Meili, R. A propos de la théorie des facteurs. Réponse à M. C. Spearman.** (Concerning the factor theory. A reply to C. Spearman.) *Arch. de psychol.*, 1930, 22, 328–332.—The author discusses the arguments advanced by Spearman in his criticism of Meili's researches on the forms of intelligence. The author denies having wished to write a critical work; the import of his work is purely empirical. He raises the point, however, that according to Spearman himself the theory of two factors must be called logically the theory of factors. The author wished to keep an empirical attitude in analyzing his tests, limiting himself to noting the group factors wherever they appeared, independent of all theory. He points out (1) that the criterion of hierarchy used by him, of which the formula is said to be invalid by Spearman, has however been used by that author in numerous cases; (2) that the risk of over-explanation by analysis is preferable to the risk of under-explanation, to which the work on means leads; (3) that the factor of invention, although discovered in the laboratory of Spearman, was not accepted by the latter until after the work of Meili. The author ends by restating his admiration for the very important work accomplished by Spearman.—*M. R. Lambercier* (Geneva).

4640. **Pressey, S. L., & Pressey, L. C. Introduction to the use of standard tests.** (Rev. ed.) Yonkers: World Book, 1931. Pp. 266. $1.80.—This book is a revision of the first edition published by the authors as an introductory handbook in the use of tests. The rapid development of tests of mental ability and school attainment and the mass of material which has been published since the first edition have influenced the authors to revise the volume to include latest thought and practice. This revision treats briefly and directly those topics upon which the testing procedure is based. Theory and statistics are minimized, detailed description of large numbers of tests has been omitted, and only such description and illustrative material as is necessary to an understanding of the nature of the different types has been included. The reader is expected to supply himself with samples of the tests in which he is most interested and in the study of which this manual will be his guide. The authors have here given an extensive and completely revised bibliography which, with the suggestions for further study, increases the usefulness of this volume as a text for beginners in classes in measurements and as a reference for busy teachers, supervisors and superintendents.—*E. V. Brill* (Malone, N. Y.).

4641. **Spearman, C. The theory of "two factors" and that of "sampling."** *Brit. J. Educ. Psychol.*, 1931, 1, 140–161.—The article outlines briefly (with essential formulae) the general theory of two factors, general and specific, underlying intellectual activity; and points out that much of the opposition to the theory is due to misunderstanding of it, and that Wilson's criticism presents no objection to, but rather an extension of the theory. The author discusses the theory of sampling, indicating that it fails to be definite to such an extent that different investigators obtain conflicting results due to lack of precision as to the degree of randomness of sampling necessary and as to the number of elements involved. He maintains that the theory of sampling lacks scientific value, whereas the two-factor theory meets the recognized criteria for usefulness.—*K. M. Cowdery* (Stanford).

4642. **Spearman, C. La théorie des facteurs.** (The factor theory.) *Arch. de psychol.*, 1930, 22, 313–327.—This article was written in response to the researches of Meili on forms of intelligence, published in the preceding number of the same journal. The author sketches from the beginning his theory of two factors based upon the criterion of tetrad differences, from which comes, when this difference is reduced to zero, the existence of two independent factors, one general, the other specific for the aptitude considered. It appears, however, that in very similar tests the analysis of specific factors shows another factor called a group factor. The author reviews the principal discoveries to which this analysis of factors has led; analysis which has also re-

sulted in enlarging more and more the two-factor theory until today it has become the theory of general factors. However, the fundamental character of the theory of aptitudes rests on that of two factors. A second chapter is devoted to the theory of chance factors, a theory which issued from the work of G. Thomson and M. Garnett, but which is shown to be unproductive. The third chapter treats of Kelley's method; a method marred, according to Spearman, by a lack of objectivity and by negligence of errors due to sampling. These faults are revealed in the instability of the factors and their irrational placement. At the same time, the author admits that this method has possibilities in the future. Finally, a last chapter concerns the researches of Meili, whose principal conclusion contradicts the two-factor theory. Spearman contradicts this conclusion in his turn by pointing out that Meili's calculations are based in part on an invalid formula for the intercolumnar correlations. Besides, the fact that the criterion of the tetrad is not satisfied does not imply that the results cannot be justified by the two-factor theory; moreover, the appearance of group factors does not weaken this theory, but quite the contrary. Taking again the results of Meili, the author shows by new calculations that such is actually the case; the group factors shown by Meili are reduced to the sole factor of free invention of which Spearman's school claims the paternity.—*M. R. Lambercier* (Geneva).

4643. **Valentiner, T. Ausserintellektuelle Einflüsse bei der Intelligenzprüfung.** (Non-intellectual influences in intelligence testing.) *Indus. Psychotechn.*, 1930, 7, 198–208.—The discrepancies between the estimated intelligence and the test scores of students were investigated in several school classes. Tabulations of the disturbing influences are given, also details of a few illustrative cases. Differences in motivation and attention stand out as especially important influences. The author advocates individual administration of tests, the use of tests that appeal to special interests of the persons tested, and the critical interpretation (as against purely statistical treatment) of test results.—*A. W. Kornhauser* (Chicago).

4644. **Van Det, E. J. Leidraad voor het oprichten van bureaux of commissies tot voorlichting bij beroepskeuze. IX. Intelligentie-onderzoek.** (Guiding lines for the establishment of bureaus or commissions for vocational guidance. IX. The examination of intelligence.) *Jeugd en Beroep*, 1930, 3, 332–337.—This is a general discussion of the nature of intelligence in relation to the problem of intelligence testing. The study of the mind involves the analysis of different mental processes—perception, imagination, attention, etc.—and these processes function at different levels in different individuals. Thought in general is manifested most often and most clearly through language and logic and may be tested in these manifestations, as has been shown notably in the Ebbinghaus completion tests and in the Binet-Simon tests. Intelligence and knowledge cannot easily be separated, for the accumulation of knowledge is one of the manifestations of intelligence. This knowledge need not, of course, necessarily be of a bookish kind. Some investigators regard it as futile to attempt tests of special functions, maintaining that since the mind acts as a unit all tests test all functions, more or less. The author holds, however, that the systematic separation and rank-order arrangement of mental activities has distinct practical value for purposes of analysis, comparison, and diagnosis.—*E. M. Pilpel* (New York City).

[See also abstracts 4366, 4477, 4576, 4587, 4593, 4595, 4603, 4609, 4620.]

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